

# C O R N E L L U N I V E R S I T Y M E D I C A L B U L L E T I N

VOLUME VII.

NUMBER 1

ANNOUNCEMENT  
OF THE  
MEDICAL COLLEGE  
NEW YORK AND ITHACA  
1917

JULY, 1917  
PUBLISHED BY CORNELL UNIVERSITY  
477 FIRST AVENUE  
NEW YORK CITY

**CORNELL UNIVERSITY MEDICAL BULLETIN**

**Issued Quarterly**

---

**Entered as Second Class Matter, June 23, 1911, at the Post Office, at New York, N. Y.,  
under the Act of July 16, 1894**

---

**These publications include**

**The Annual Announcement of the Medical College and  
Reprinted Studies from the Several Departments of the Medical College  
and its Research Laboratories**

C O R N E L L  
U N I V E R S I T Y  
M E D I C A L B U L L E T I N

ANNOUNCEMENT  
OF THE  
MEDICAL COLLEGE  
NEW YORK AND ITHACA  
1917

JULY, 1917  
PUBLISHED BY CORNELL UNIVERSITY  
477 FIRST AVENUE  
NEW YORK CITY

## CONTENTS.

	PAGE
Calendar .....	5
Board of Trustees .....	6
Medical College Council .....	7
Faculty of Medicine .....	8
Lectures .....	11
Instructors and Assistants .....	11
Clinical Instructors .....	13
Clinical Assistants .....	14
Officers of Administration .....	14
Dispensary Staff .....	14
General Statement .....	17
Requirements for Admission .....	20
Application for Admission .....	21
Admission to Advanced Standing .....	21
Admission to Special Courses .....	22
Requirements for License to Practice Medicine in New York State....	22
Charges for Instruction .....	23
Expenses of Students .....	24
Location and Mode of Access .....	24
Plan of Instruction .....	25
First Year .....	26
Second Year .....	26
Third Year .....	26
Fourth Year .....	26
Details of the Plan of Instruction .....	28
Anatomy .....	28
Physiology .....	33
Chemistry .....	34
Pharmacology and Materia Medica .....	35
Medicine .....	36
Clinical Pathology .....	39
General Therapeutics .....	40
Surgery .....	41
Obstetrics .....	46
Pathology .....	48
Bacteriology .....	51
Special Departments of Medicine and Surgery.....	52
Neurology .....	52
Psychiatry .....	53
Pediatrics .....	54
Gynæcology .....	55

CORNELL UNIVERSITY MEDICAL COLLEGE.

	PAGE
Urology .....	56
Dermatology .....	57
Laryngology and Rhinology .....	58
Ophthalmology .....	58
Otology .....	59
Orthopædic Surgery .....	59
Roentgenology .....	60
Hygiene .....	61
Medical Jurisprudence .....	61
Schedule of Courses .....	63
Examinations and Advancement in Course.....	73
Requirements for Graduation .....	75
Courses for Graduates .....	78
The Graduate School .....	82
Facilities for Graduate Study and Courses of Instruction.....	86
Graduates, 1916 .....	105
Students, 1916-1917 .....	106
Candidates for the Degree of Doctor of Medicine .....	106
Candidates for the Degree of Doctor of Philosophy.....	110
Graduate Students—Not Candidates for a Degree.....	110

# ITHACA DIVISION.

	PAGE
Faculty of Medicine at Ithaca .....	90
Calendar for Ithaca .....	91
General Statement .....	91
Departments, Methods and Facilities .....	93
Anatomy .....	93
Histology and Embryology .....	94
Physiology and Biochemistry .....	96
Chemistry .....	98
Schedule and Summarized Statement.....	99
Schedule of Required Courses.....	99
Summary of Required Courses .....	99
Requirements for Admission .....	100
Combined A.B and M.D. Degrees .....	101
Residence and Registration .....	102
Examinations .....	102
Advancement for First to Second Year.....	102
Charges for Instruction . . . . .	102
Board and Rooms .....	103

## CALENDAR.

1917

- June 2. Saturday—Third term ends.  
June 4. Monday—Examinations begin.  
June 14. Thursday, 3 P.M.—Commencement.  
Sept. 14. Friday—Examinations begin for admission to the first year of all departments of Cornell University.  
Sept. 26. Wednesday—Examinations begin for conditioned students and for those applying for advanced standing in the medical department.  
Oct. 1. Monday—Instruction begins.  
Nov. 6. Tuesday—Election day. Legal holiday.  
Nov. 28. Wednesday, 6 P.M.—Thanksgiving recess begins.  
Dec. 3. Monday, 9 A.M.—Thanksgiving recess ends.  
Dec. 22. Saturday, 6 P.M.—First term ends.\*  
Dec. 24. Monday—Christmas recess begins.

1918

- Jan. 7. Monday, 9 A.M.—Second term begins.  
Feb. 22. Friday—Legal holiday.  
March 16. Saturday, 6 P.M.—Second term ends.\*  
March 18. Monday—9 A.M.—Third term begins.\*  
March 29. Friday, 9 A.M.—Easter recess begins.  
April 1. Monday, 9 A.M.—Easter recess ends.  
May 30. Thursday—Legal Holiday.  
June 1. Saturday, 6 P.M.—Third term ends.  
June 3. Monday—Examinations begin.  
June 13. Thursday—Commencement.

\*The session is subdivided into three terms of eleven, ten, and eleven weeks, respectively, and courses are scheduled in conformity with this subdivision.

---

All students must be registered at the secretary's office at the opening of the session. No student will be admitted after October 10th without special permission of the Faculty. Immediately after registration the fees must be paid at the treasurer's office.

---

Men may take the first year at either New York City or Ithaca. Women must take the first year at Ithaca. All students take the last three years at New York City.

# BOARD OF TRUSTEES.

The PRESIDENT of the University . . . . .		Ithaca
The GOVERNOR of New York State . . . . .		Albany
The LIEUTENANT-GOVERNOR of N. Y. State . . . . .		Albany
The SPEAKER of the Assembly . . . . .		Albany
The STATE COMMISSIONER of Education . . . . .	} <i>Ex-Officio</i>	Albany
The STATE COMMISSIONER of Agriculture . . . . .		Albany
The PRESIDENT of the State Agricultural Soc. . . . .		Albany
The LIBRARIAN of the Cornell Library . . . . .		Ithaca
CHARLES EZRA CORNELL, A.B., LL.B. . . . .		Ithaca
*JARED T. NEWMAN, Ph.B., LL.B. . . . . (B.)		Ithaca
*MYNDERSE VAN CLEEF, B.S. . . . . (B.)		Ithaca
*ROBERT H. TREMAN, B.M.E. . . . . (B.)		Ithaca
*JOHN C. WESTERVELT, B.S. in Arch . . . . . (A.)		New York
*MRS. HARRIET TILDEN MOODY, B. Lit. . . . . (A.)		Chicago, Ill.
*THOMAS B. WILSON . . . . . (G.)		Hall
HENRY HERMAN WESTINGHOUSE . . . . . (B.)		New York
CHARLES E. TREMAN, B.L. . . . . (B.)		Ithaca
ROGER B. WILLIAMS, A.M. . . . . (B.)		Ithaca
FRANKLIN MATTHEWS, A.B. . . . . (A.)		New York
CUTHBERT W. POUND . . . . . (A.)		Lockport
J. DUPRATT WHITE, B.L. . . . . (G.)		New York
CHARLES H. BLOOD, Ph.B., LL.B. . . . . (B.)		Ithaca
C. SIDNEY SHEPARD, A.B., LL.B. . . . . (B.)		New Haven
HENRY W. SACKETT, A.B. . . . . (B.)		New York
IRA A. PLACE, A.B. . . . . (A.)		New York
GEORGE J. TANSEY . . . . . (A.)		St. Louis, Mo.
JOHN A. DIX . . . . . (G.)		Thomson
HENRY RUBENS ICKELHEIMER, B.L. . . . . (B.)		New York
ANDREW D. WHITE, LL.D., L.H.D., D.C.L. . . . . (B.)		Ithaca
CHARLES M. SCHWAB . . . . . (B.)		New York
HENRY J. PATTEN . . . . . (A.)		Chicago, Ill.
WILLARD D. STRAIGHT . . . . . (A.)		New York
HORACE WHITE . . . . . (G.)		Syracuse
ANDREW CARNEGIE, LL.D. . . . . (B.)		New York
FRANK H. HISCOCK, A.B. . . . . (B.)		Syracuse
HERBERT D. MASON, LL.B. . . . . (A.)		Tulsa, Okla.
JAMES HARVEY EDWARDS, C.E. . . . . (A.)		New York
FRANK H. MILLER, V.S. . . . . (G.)		New York
WILLIAM F. PRATT . . . . . (Gr.)		Batavia
EMMONS L. WILLIAMS, <i>Comptroller</i> . . . . .		Ithaca
CHARLES D. BOSTWICK, A.B., LL.B., Treasurer, and Secretary of Board of Trustees . . . . .		Ithaca

\*Term of office (5 years) expires in 1916, the next group of six in 1917, etc. B., elected by Board. A., elected by Alumni. G., appointed by the Governor. Gr., elected by the New York State Grange for 1915-16.



## MEDICAL COLLEGE COUNCIL.

At the foundation of the Medical College the following resolution establishing a Medical College Council and determining its functions was adopted by the Board of Trustees of Cornell University:

*Resolved*, That for the purpose of making recommendations to the Board of Trustees or the Executive Committee in relation to the business management of the Medical College there be established, and there is hereby established, a Medical College Council which shall consist of seven members, to wit: the President of the University (who shall be *ex-officio* chairman), the Dean of the Medical College, and three trustees to be elected by the Board of Trustees or the Executive Committee, who shall be appointed, one for one year, one for two years, and one for three years, and their successors to be appointed for three years, and two members of the Faculty, to be elected by the Faculty, who shall be appointed, one for one year and one for two years, and their successors to be appointed for two years, and that all appointments to fill vacancies be made for unexpired terms.

The Council at present consists of the following members:

JACOB GOULD SCHURMAN, President of the University and  
Chairman *ex-officio* of the Council.

WILLIAM M. POLK, Dean of the Medical College.

H. R. ICKELHEIMER,  
H. H. WESTINGHOUSE, } of the Board of Trustees.  
IRA L. PLACE,

L. A. STIMSON,  
L. A. CONNER, } of the Faculty.

J. THORN WILLSON, Secretary.

CORNELL UNIVERSITY MEDICAL COLLEGE.

FACULTY OF MEDICINE.

---

JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D.,  
*President.*

WILLIAM M. POLK, M.D., LL.D.,  
*Dean and Professor of Clinical Surgery, Department of Gynecology, Consulting Gynecologist to Bellevue Hospital.*

---

FREDERIC S. DENNIS, A.B., M.D., F.R.C.S.,  
*Professor of Clinical Surgery, Emeritus.*

NEWTON M. SHAFFER, M.D.,  
*Professor of Orthopaedic Surgery, Emeritus.*

W. GILMAN THOMPSON, Ph.B., M.D.,  
*Professor of Medicine, Emeritus.*

---

LEWIS A. STIMSON, A.B., M.D., LL.D.,  
*Professor of Surgery, Consulting Surgeon to Bellevue, New York and Memorial Hospitals.*

GEORGE WOOLSEY, A.B., M.D.,  
*Professor of Clinical Surgery, Surgeon to Bellevue Hospital, Consulting Surgeon to the Memorial Hospital.*

J. CLIFTON EDGAR, Ph.B., A.M., M.D.,  
*Professor of Obstetrics and Clinical Midwifery, Obstetrician to Bellevue Hospital, Obstetric Surgeon to Manhattan Maternity and Dispensary, Consulting Obstetrician to the City Hospital.*

JAMES EWING, A.M., Sc.D., M.D.,  
*Professor of Pathology, Director of Cancer Research, Memorial Hospital.*

GRAHAM LUSK, Ph.D., Sc.D., F.R.S. (Edin.),  
*Professor of Physiology, Scientific Director of the Russell Sage Institute of Pathology.*

FRANK SHERMAN MEARA, A.B., Ph.D., M.D.,  
*Professor of Therapeutics, Associate Attending Physician to St. Luke's Hospital, Visiting Physician to Bellevue Hospital, Consulting Physician to Mountinside Hospital, Montclair, N. J., General Memorial Hospital, Morristown, N. J., St. Mary's Hospital, Orange, N. J., Dover General Hospital, Dover, N. J., and Mt. Vernon Hospital, Mt. Vernon, N. Y.*

ROBERT ANTHONY HATCHER, Ph.G., M.D.,  
*Professor of Pharmacology.*

CHARLES R. STOCKARD, M.S., Ph.D.,  
*Professor of Anatomy.*

LEWIS A. CONNER, Ph.B., M.D.,  
*Professor of Medicine, Physician to New York Hospital, Consulting Physician to Bellevue Hospital.*

THOMAS WOOD HASTINGS, A.B., M.D.,  
*Professor of Clinical Pathology, Assistant Visiting Physician to Bellevue Hospital.*

WILLIAM J. ELSER, M.D.,  
*Professor of Bacteriology, Pathologist to the New York Hospital.*

STANLEY R. BENEDICT, Ph.D.,  
*Professor of Chemistry, Chemist to the Memorial Hospital, Research Department.*

## FACULTY OF MEDICINE

CHARLES L. GIBSON, A.B., M.D.,

*Associate Professor of Surgery, Surgeon to the New York Hospital, Consulting Surgeon to the Memorial, St. Luke's, City, Southside and Vassar Brothers' Hospitals, and to the State Hospital for Crippled and Deformed Children, Membre de l'Association Française de Chirurgie.*

HOMER F. SWIFT, M.D.,

*Associate Professor of Medicine, Director of Medicine, Bellevue Hospital.*

JOSEPH E. WINTERS, M.D.,

*Professor of Clinical Medicine, Department of Pediatrics, Consulting Physician to Willard Parker Hospital.*

CHARLES L. DANA, A.M., M.D., LL.D.,

*Professor of Clinical Medicine, Department of Neurology, Consulting Physician to Bellevue Hospital, Neurologist to Woman's Hospital, Consulting Neurologist to the Neurological Institute and to the Montefiore Home. Consulting Alienist to Manhattan State Hospital.*

GEORGE THOMSON ELLIOT, A.B., M.D.,

*Professor of Clinical Medicine, Department of Dermatology, Consulting Dermatologist to St. Luke's, Columbus, New York Skin and Cancer, and New York Lying-in Hospitals, and to New York Eye and Ear Infirmary.*

FREDERICK WHITING, A.M., M.D.,

*Professor of Clinical Surgery, Department of Otolaryngology, Aural Surgeon to New York Eye and Ear Infirmary, and to Mount Sinai Hospital and St. Bartholomew's Clinic.*

EDWARD L. KEYES, JR., A.B., Ph.D., M.D.,

*Professor of Clinical Surgery, Department of Urology, Visiting Urologist to Bellevue Hospital, and Surgeon to St. Vincent's Hospital.*

ROBERT G. REESE, Ph.G., M.D.,

*Professor of Clinical Surgery, Department of Ophthalmology, Ophthalmic Surgeon to New York Eye and Ear Infirmary, Consulting Ophthalmologist to Bellevue, Memorial, Nursery and Child's Hospitals, and New York Infirmary for Women and Children.*

OTTO H. SCHULTZE, A.M., M.D.,

*Professor of Medical Jurisprudence.*

ALFRED S. TAYLOR, M.D.,

*Professor of Operative Surgery, and Lecturer on Surgery, Surgeon to the Fordham Hospital, Associate Surgeon to the Neurological Institute, Assistant Surgeon to the Babies' Hospital, Visiting Neurological Surgeon Hospital for the Ruptured and Crippled, Consulting Surgeon to the Tarrytown, White Plains, and New York City Children's Hospitals and Schools.*

GEORGE G. WARD, Jr., M.D.,

*Associate Professor of Clinical Surgery, Department of Gynaecology, Associate Visiting Surgeon to Bellevue and the Women's Hospitals, Obstetrician to the Misericordia Hospital, Consulting Gynaecologist to the Post Graduate, Italian, and Monmouth Memorial Hospitals.*

ALEXANDER LAMBERT, A.B., Ph.B., M.D.,

*Professor of Clinical Medicine, Visiting Physician to Bellevue Hospital.*

CHARLES E. NAMMACK, Ph.B., M.D., LL.D.,

*Professor of Clinical Medicine, Visiting Physician to Bellevue and St. Vincent's Hospitals.*

JOHN A. HARTWELL, Ph.B., M.D.,

*Assistant Professor of Surgery and Professor of Clinical Surgery, Director of Surgery Bellevue Hospital, Consulting Surgeon to the Memorial, Lincoln, Lawrence and United Hospitals.*

IRVING S. HAYNES, Ph.B., M.D.,

*Professor of Clinical Surgery, Surgeon to Harlem and Red Cross Hospitals.*

WILLIAM B. COLEY, A.B., A.M., M.D.,

*Professor of Clinical Surgery, Surgeon to Memorial Hospital, and Attending Surgeon to Hospital for Ruptured and Crippled.*

CORNELL UNIVERSITY MEDICAL COLLEGE.

JOHN ROGERS, A.B., Ph.D., M.D.,

*Professor of Clinical Surgery, Surgeon to Bellevue and St. Francis Hospitals.*

HARMON SMITH, A.B., M.D.,

*Professor of Clinical Surgery, Department of Laryngology and Rhinology, Surgeon to the Manhattan Eye, Ear and Throat Hospital, Consulting Laryngologist to the Memorial Hospital, and to the Muhlenberg Hospital.*

CHARLTON WALLACE, M.D.,

*Professor of Clinical Surgery, Department of Orthopædic Surgery. Assistant Surgeon Hospital for the Ruptured and Crippled, Orthopædic Surgeon in charge St. Charles Hospital, Port Jefferson, Consulting Orthopædic Surgeon Stamford Hospital, Stamford, Conn.*

HOWARD LILIENTHAL, M.D.,

*Professor of Clinical Surgery, Department of Surgery, Visiting Surgeon to Bellevue and Mt. Sinai Hospitals, Consulting Surgeon to the Har Moriah and Jewish Maternity Hospitals, and the Hospital for Deformities and Joint Diseases.*

LEWIS GREGORY COLE, M.D.,

*Professor of Roentgenology.*

JOHN C. TORREY, A.B., Ph.D.,

*Professor of Hygiene.*

RICHARD WEIL, M.D.,

*Professor of Experimental Medicine, Assistant Director of Cancer Research, Memorial Hospital.*

R. FOSTER KENNEDY, M.D., F.R.S. (Edin.),

*Associate Professor of Clinical Medicine, Department of Neurology, Visiting Physician to the Neurological Institute, Consulting Neurologist to Bellevue Hospital.*

JAMES C. JOHNSTON, A.B., M.D.,

*Assistant Professor of Clinical Medicine, Department of Dermatology.*

WILLIAM C. THRO, A.M., M.D.,

*Assistant Professor of Clinical Pathology.*

EUGENE F. DUBOIS, M.D.,

*Assistant Professor of Medicine.*

WALTER W. PALMER, B.S., M.D.

*Assistant Professor of Medicine.*

WALTER L. NILES, M.D.,

*Assistant Professor of Medicine, Adjunct Assistant Visiting Physician to Bellevue Hospital.*

JAMES MORLEY HITZROT, A.B., M.D.,

*Assistant Professor of Clinical Surgery, Department of Surgery, Associate Surgeon New York Hospital.*

CARL J. WIGGERS, M.D.,

*Assistant Professor of Physiology.*

J. F. GUDERNATSCH, Ph.D.,

*Assistant Professor of Anatomy.*

WILLIAM H. SHELDON, M.D.,

*Assistant Professor of Clinical Medicine, Department of Medicine.*

MALCOLM GOODRIDGE, M.D.,

*Assistant Professor of Therapeutics, Adjunct Assistant Attending Physician to Bellevue Hospital.*

BURTON J. LEE, A.B., M.D.,

*Assistant Professor of Clinical Surgery; Associate Attending Surgeon to the New York Hospital.*

## FACULTY OF MEDICINE.

PERCY R. TURNURE, A.M., M.D.,

*Assistant Professor of Clinical Surgery, Attending Surgeon to the French Hospital and to the House of Relief, Associate Attending Surgeon to New York Hospital, Consulting Surgeon to the Bedford State Reformatory and to St. Faith's Hospital, Tarrytown, N. Y.*

CHARLES NORRIS, M.D.,

*Assistant Professor of Pathological Anatomy, Pathologist to Bellevue Hospital.*

FRANK M. HUNTOON, M.D.,

*Assistant Professor of Bacteriology.*

HORACE W. FRINK, M.D.,

*Assistant Professor of Clinical Medicine, Department of Neurologist, Adjunct Assistant Visiting Neurologist to Bellevue Hospital.*

## LECTURERS.

MAX EINHORN, M.D.,

*Lecturer on Diseases of the Stomach.*

JOHN T. MACCURDY, M.D.,

*Lecturer on Clinical Medicine, Department of Psychiatry.*

## INSTRUCTORS AND ASSISTANTS.

EDWARD MCP. ARMSTRONG, M.D.,

*Assistant in Clinical Surgery.*

H. V. ATKINSON, M.Sc.

*Assistant in Physiology.*

HAROLD C. BAILEY, M.D.,

*Instructor in Obstetrics.*

DAVID P. BARR, A.B., M.D.,

*Instructor in Medicine.*

BENJAMIN S. BARRINGER, A.B., M.D.,

*Instructor in Clinical Surgery, Department of Urology.*

DAVID N. BARROWS, A.B., M.D.,

*Instructor in Clinical Surgery, Department of Gynaecology.*

FENWICK BEEKMAN, M.D.,

*Instructor in Operative Surgery and Assistant in Clinical Surgery.*

G. B. BERNHEIM,

*Assistant in Chemistry.*

JOSEPH C. BOCK, Chem.E., Ph.D.

*Instructor in Chemistry.*

RICHARD W. BOLLING, M.D.,

*Assistant in Clinical Surgery.*

JACK V. BOHRER, B.S., M.D.

*Assistant in Clinical Surgery.*

WALTER H. BRUNDAGE, M.D.,

*Instructor in Medicine.*

KENNETH BULKLEY, M.D.,

*Instructor in Clinical Surgery.*

CHARLES S. B. CASSASSA, A.B., M.D.,

*Assistant in Pathological Anatomy.*

RUSSELL L. CECIL, A.B., M.D.,

*Instructor in Medicine and Assistant in Clinical Pathology.*

CORNELL UNIVERSITY MEDICAL COLLEGE.

- ROBERT CHAMBERS, A.M., Ph.D.,  
*Instructor in Anatomy.*
- ARTHUR F. COCA, M.D.,  
*Instructor in Immunology.*
- CARY EGGLESTON, M.D.,  
*Instructor in Pharmacology.*
- ELISE S. L'ESPÉRANCE, M.D.,  
*Instructor in Pathology.*
- SUMNER EVERINGHAM, A.B., M.D.,  
*Assistant in Clinical Surgery.*
- GUILFORD S. DUDLEY, A.B., M.D.,  
*Assistant in Clinical Surgery.*
- LILIAN K. P. FARRAR, A.B., M.D.,  
*Instructor in Clinical Surgery, Department of Gynaecology.*
- JAMES BELDEN GERE, M.D.,  
*Instructor in Neuro-pathology.*
- JOHN C. A. GERSTER, M.D.,  
*Instructor in Operative Surgery.*
- J. H. GLOBUS, A.B.,  
*Instructor in Anatomy.*
- J. P. HOGUET, M.D.,  
*Instructor in Surgery.*
- EDWIN WILSON HOLLADAY, A.B., M.D.,  
*Instructor in Clinical Surgery, Department of Gynaecology.*
- ARTHUR L. HOLLAND, M.D.,  
*Instructor in Clinical Medicine, Department of Medicine.*
- HENRY WIRT JACKSON, M.D.,  
*Instructor in Clinical Pathology.*
- NANCY JENISON, M.D.,  
*Instructor in Medicine.*
- JAMES H. KENYON, B.S., M.D.,  
*Instructor in Clinical Surgery.*
- SAMUEL LEVINE, M.D.,  
*Assistant in Medicine.*
- THERESA LEVY, A.B.,  
*Assistant in Chemistry.*
- W. WALLACE MAVER, M.D.,  
*Assistant in Roentgenology.*
- EDWARD MILTIMORE, M.D.,  
*Instructor in Medicine.*
- CHARLES V. MORRILL, A.M., Ph.D.,  
*Instructor in Anatomy.*
- HENRY MULLER, A.B., M.D.,  
*Assistant in Pathology.*
- H. MURAYAMA,  
*Preparateur in Anatomy.*
- E. OSTERBERG,  
*Instructor in Chemistry.*
- GEORGE PAPANICOLOU, Ph.D., M.D.,  
*Instructor in Anatomy.*
- HAROLD E. B. PARDEE, M.D.,  
*Instructor in Medicine.*

## FACULTY OF MEDICINE.

- JOHN P. PETERS, M.D.,  
*Assistant in Medicine.*
- HAROLD F. PIERCE, Ph.B.,  
*Instructor in Physiology.*
- ALFRED RAHE,  
*Assistant in Hygiene.*
- JESSIE M. RAHE, A.B.,  
*Assistant in Experimental Medicine.*
- JOHN H. RICHARDS, M.D.,  
*Instructor in Clinical Pathology and in Medicine.*
- JOSEPH C. ROPER, M.D.,  
*Instructor in Clinical Medicine, Department of Pediatrics.*
- HAROLD E. SANTEE, A.B., M.D.,  
*Instructor in Operative Surgery and Assistant in Clinical Surgery.*
- EMILY J. SEAMON, M.D.,  
*Assistant in Experimental Medicine.*
- MONTGOMERY H. SICARD, B.S., M.D.,  
*Instructor in Therapeutics.*
- HANS J. SCHWARTZ, M.D.,  
*Instructor in Clinical Pathology and Instructor in Clinical Medicine, Department of Dermatology.*
- HARRY VAN NESS SPAULDING, M.D.,  
*Instructor in Operative Surgery.*
- JOSEPH M. STEINER, B.S., M.D.,  
*Instructor in Roentgenology.*
- RALPH G. STILLMAN, M.D.,  
*Instructor in Clinical Medicine.*
- BENJAMIN MORGAN VANCE, A.B., M.D.,  
*Instructor in Surgical Pathology.*
- GEORGE W. WHEELER, M.D.,  
*Assistant in Bacteriology.*
- HARVEY C. WILLIAMSON, M.D.,  
*Instructor in Obstetrics.*
- JAMES WORCESTER, M.D.,  
*Instructor in Clinical Surgery.*

## CLINICAL INSTRUCTORS.

- C. O. CHENEY, M.D.,  
*Clinical Instructor in Medicine Department of Psychiatry.*
- ARTHUR H. CILLEY, M.D.,  
*Clinical Instructor in Surgery, Department of Orthopaedic Surgery.*
- ARTHUR E. HOAG, M.D.,  
*Clinical Instructor in Surgery, Department of Surgery.*
- HOWARD S. JECK, Ph.B., M.D.,  
*Clinical Instructor in Surgery, Department of Urology.*
- GEORGE B. McAULIFFE, A.B., M.D.,  
*Clinical Instructor in Surgery, Department of Otolaryngology.*
- CHARLES HALPIN NAMMACK, A.B., M.D.,  
*Clinical Instructor in Medicine, Department of Medicine.*
- CLARENCE B. OBERNDORF, M.D.,  
*Clinical Instructor in Medicine, Department of Neurology.*

## CORNELL UNIVERSITY MEDICAL COLLEGE.

- BERNARD W. SAMUELS, M.D.,  
*Clinical Instructor in Surgery, Department of Ophthalmology.*
- WILLIAM SHANNON, A.B., M.D.,  
*Clinical Instructor in Medicine, Department of Pediatrics.*
- WILLIAM L. SOULE, A.B., M.D.,  
*Clinical Instructor in Anaesthesia.*
- RICHMOND STEPHENS, M.D.,  
*Clinical Instructor in Surgery, Department of Orthopaedic Surgery.*
- ABRAHAM STRACHSTEIN, M.D.,  
*Clinical Instructor in Surgery, Department of Urology.*
- ANNA TJOMSLAND, A.B., M.D.,  
*Clinical Instructor in Anesthesia.*
- WILLIAM D. TYRRELL, M.D.,  
*Clinical Instructor in Medicine, Department of Pediatrics.*
- GEORGE W. VANDEGRIFT, A.M., M.D.,  
*Clinical Instructor in Surgery, Department of Ophthalmology.*
- LUCIUS A. WING, B.S., M.D.,  
*Clinical Instructor in Surgery, Department of Surgery.*
- W. W. WRIGHT, M.D.,  
*Clinical Instructor in Medicine, Department of Psychiatry.*

### CLINICAL ASSISTANTS.

- THOMAS A. MULCAHY, M.D.,  
*Clinical Assistant in Surgery, Department of Otology.*
- M. E. VAN FLEET, M.D.,  
*Clinical Assistant in Medicine, Department of Neurology.*

### OFFICERS OF ADMINISTRATION.

- WILLIAM M. POLK, M.D., LL.D., *Dean.*
- J. S. FERGUSON, M.Sc., M.D., *Secretary of the Faculty.*
- J. THORN WILLSON, *Managing Clerk.*
- JESSIE P. ANDRESEN, *Assistant.*
- MILTON F. HARRIS, *Assistant.*
- ELISE L'ESPÉRANCE, M.D., *Librarian.*

### DISPENSARY STAFF.

#### Department of Medicine.

*Chief of Clinic.*

WILLIAM H. SHELDON.

*Physicians*

- WALTER H. BRUNDAGE, M.D.      ARTHUR L. HOLLAND, M.D.  
EDWARD MILTIMORE, M.D.

*Assistant Physicians.*

- V. C. BAKER, M.D.,      NANCY JENISON, M.D.,  
CHARLES G. BRINK, M.D.,      KRISTINE MANN, M.D.,  
ELEANOR BERTINE, M.D.,      GUILFORD S. DUDLEY, M.D.



## FACULTY OF MEDICINE.

### Department of Surgery.

#### *Surgeons.*

ARTHUR E. HOAG, M.D.,                      LUCIUS A. WING, M.D.

#### *Assistant Surgeons.*

I. D. STEINHARDT, M.D.,                      H. S. MARCLEY, M.D.,  
MAX SOLETSKY, M.D.

### Department of Gynæcology.

#### *Chief of Clinic.*

LILLIAN K. P. FARRAR, M.D.

#### *Surgeon.*

EVERETT M. HAWKS, M.D.

#### *Assistant Surgeons.*

JOSEPH C. STAMMERS, M.D.,                      DAVID N. BARROWS, M.D.,  
ROBERT J. SHEA, M.D.

### Department of Urology.

#### *Surgeons.*

ABRAHAM STRACHSTEIN, M.D.,                      HOWARD S. JECK, M.D.

#### *Assistant Surgeons.*

MIGUEL LAVANDERA, M.D.,                      FRANK N. DEALY, M.D.,  
I. P. HEYMAN, M.D.,                      MAX SPENCER ROHDE, M.D.,  
A. GOLDEY, M.D.,                      V. C. PEDERSEN, M.D.

### Department of Neurology.

#### *Chief of Clinic.*

HORACE WESTLAKE FRINK, M.D.

#### *Assistant Physicians.*

SWEPSON J. BROOKS, M.D.,                      C. P. OBERNDORF, M.D.,  
M. E. VAN FLEET, M.D.,                      F. W. STECHMANN, M.D.,  
J. W. STEPHENSON, M.D.,                      MARY K. ISHAM, M.D.,  
R. G. MACROBERT, M.D.,                      WALTER M. KRAUS, M.D.

### Department of Psychiatry.

#### *Chief of Clinic.*

W. W. WRIGHT, M.D.

#### *Physician*

JOHN T. MACCURDY, M.D.

#### *Assistant Physicians.*

C. O. CHENEY, M.D.,                      R. P. FOLSOM, M.D.  
T. J. WELDT, M.D.,                      F. D. STREETER, M.D.,  
A. T. WOOD, M.D.,

### Department of Pediatrics.

#### *Physicians.*

WILLIAM SHANNON, M.D.,                      WILLIAM D. TYRRELL, M.D.

#### *Assistant Physicians.*

LESTER D. WISE, M.D.,                      CHARLES LUTZ, M.D.,  
ELIZABETH BRUYN, M.D.,                      MAY G. WILSON, M.D.,  
R. H. WHITCHER, M.D.

CORNELL UNIVERSITY MEDICAL COLLEGE

**Department of Dermatology.**

*Chief of Clinic.*

JAMES C. JOHNSTON, M.D.,

*Physician.*

HANS J. SCHWARTZ, M.D.

*Assistant Physicians.*

ANDREW J. GILMOUR, M.D.,

EDWARD H. MARSH, M.D.,

O. L. LEVIN, M.D.,

S. FELDMAN, M.D.,

S. GENOVESE, M.D.,

THOMAS E. WALDIE, M.D.

**Department of Otology.**

*Chief of Clinic.*

GEORGE B. MCAULIFFE, M.D.

*Surgeon.*

THOMAS A. MULCAHY, M.D.

*Assistant Surgeons.*

STEWART L. CRAIG, M.D.,

E. POPE, M.D.,

R. T. WILLIAMS, M.D.

**Department of Laryngology.**

*Chief of Clinic.*

*Surgeon.*

WALTER C. MONTGOMERY, M.D.

*Assistant Surgeons.*

ROBERT C. HOWARD, M.D.,

HUGH A. RILEY, M.D.,

FREDERICK D. WILLIAMS, M.D.

**Department of Orthopædics.**

*Chief of Clinic.*

ARTHUR H. CILLEY, M.D.

*Assistant Surgeons.*

JOHN S. WARE, M.D.,

NATHANIEL P. BREED, M.D.,

**Department of Roentgenology.**

*Chief of Clinic*

JOSEPH M. STEINER, M.D.

*Assistant.*

W. WALLACE MAVER, M.D.

**Department of Ophthalmology.**

*Surgeons.*

GEORGE W. VANDEGRIFT, M.D.,

B. W. SAMUELS, M.D.

*Assistant Surgeons.*

M. LOMBARDO, M.D.,

C. A. DRAKE, M.D.,

ROLLAND D. TOMLINSON, M.D.,

W. P. J. RUDDY, M.D.

**Department of Drugs and Supplies.**

*Pharmacist.*

GUSTAVE T. RUCKERT, Ph.G.

*Assistant Pharmacist.*

THEODORE A. CROLLY, Ph.G.

## GENERAL STATEMENT.

### GENERAL STATEMENT.

The Medical Department of Cornell University was made possible by the gift to the University of a commodious and fully equipped building designed for medical instruction, and by the bestowal of funds for the maintenance of a vigorous school of medicine.

The objects of this school are:

- (1) To develop physicians of the best type, and
- (2) To conduct researches into the nature and cure of disease.

The school offers educational and research facilities to all undergraduates and graduates in medicine who are properly qualified to benefit from these opportunities and who are in sympathy with these aims.

The Main College Building comprises a Medical School and Dispensary, with principal entrance on First Avenue, opposite Bellevue Hospital, and occupies the entire block between Twenty-seventh and Twenty-eighth Streets on First Avenue. The building is devoted to the Departments of Clinical Pathology, Chemistry, Pathology, Bacteriology, Physiology, Medicine and their laboratory equipment.

The Loomis Laboratory (founded 1886 by the same munificent hand) serves the purpose of undergraduate instruction, in connection with the laboratories in the College building. It has also been reorganized as a research laboratory, and special departments have been established in bacteriology, physiological chemistry, experimental medicine, and pharmacology.

The College Dispensary, located in the main College building, is fully equipped for purposes of instruction.

The attendance in the Dispensary averages about 400 patients daily and annually includes about 15,000 new patients. The organization is such as to bring the Dispensary into closest touch with the laboratory and research facilities of the College. In the Department of Medicine, especially, students in the fourth year are assigned to continual service in the Dispensary.

The Department of Radiology as well as the Laboratory of Clinical Pathology, is in direct connection with the Dispensary, and by coöperation and coördination of work their services are placed at the constant disposal of the various other departments of the Dispensary for the diagnosis and investigation of disease and for purposes of instruction.

The Library is supplied with current periodicals in German, French, English and Italian, which include nearly all the more important journals in the field of medical science, and the back files of these periodicals are fairly complete. Every effort is made to maintain a library commensurate with the needs of the College. A special reading room is provided for the convenience of students.

In addition to the College Library, students enjoy certain privileges at the Library of the New York Academy of Medicine, 17 West 43d Street, the second largest medical library in the United States, and at the various public libraries of the city.

**New York Hospital.**—The Medical College, through the courtesy of the Governors of the New York Hospital, has long been accorded certain privileges for instruction in its wards, but on the first of January, 1913, a definite arrangement was established between Cornell University and the New York Hospital, through the donation to the hospital of a generous fund which was presented by Mr. George F. Baker, one of the Governors of the Hospital, upon the condition that thereafter half the entire medical, surgical and pathological services of the institution should be definitely assigned to the Cornell University Medical College for the advancement of its teaching and research.

By this most advantageous arrangement the University nominates the Visiting Staff and Laboratory Staff of its division and secures the admission of its students to the wards as clinical clerks, which enables the College to make a definite provision in its courses of instruction and research for work in the New York Hospital, and this is now closely correlated in the curriculum with the similar work which had hitherto been done in Bellevue Hospital. Furthermore, the Laboratory Staffs of the different departments of the Medical College are placed at the service of the Hospital for the purpose of extending its scientific work.

The hospital service thus assigned to the College comprises 100 beds. This service is exceedingly active. It includes several thousand acute and emergency cases brought in annually from a large ambulance and dispensary district.

The medical staff of this hospital assigned to the Cornell University Medical College has been organized as outlined in the departmental announcements for medicine and surgery.

The Professors of Medicine and Surgery are directly responsible to the University for the conduct of the instruction in the New York Hospital.

**Bellevue Hospital.**—This hospital, located on First Avenue, directly opposite the Main College building, has 1,200 beds, and receives 24,000 patients annually. It contains an amphitheatre capable of seating 300 students, and also a number of small operating theatres, where section demonstrations in surgery and gynæcology are made before the class. Connected with the hospital is a hydropathic establishment, where students are shown the practical application of baths, douches, massage, etc.

The hospital is organized in four divisions, one of which has been placed by the Trustees of the hospital at the disposal of the Faculty of the Cornell University Medical College for medical instruction. The services thus intrusted to the College include, continuously, 90 medical beds, 90 surgical beds, 60 to Urology, and for one-half the year 54 obstetrical beds, together with equal privileges with the other three divisions, giving continuous opportunity for instruction and research, in the additional wards devoted to the treatment of alcoholic diseases, tuberculosis and the psychopathic diseases. There are also available 60 beds for instruction in Gynæcology by members of the staff assigned to this duty by the Cornell University Medical College.

The visiting staff of the Second, or Cornell Division is drawn entirely

## GENERAL STATEMENT.

from the Faculty and instructors of the College, and by coöperation with the Medical Board of the Hospital this division has been organized with a view to the best interests of the patients, as well as with a view to furnishing adequate facilities for instruction. The students spend a considerable portion of the fourth year in this hospital as clinical or surgical "clerks," and during the preceding years frequent clinical instruction is conducted in its wards, as fully described under "Details of the Plan of Instruction."

While Bellevue Hospital is provided with an elaborate Department of Pathology of its own, the scope of the hospital work of the Cornell Division is broadened by the intimate relation existing between the laboratories of the Medical College and the medical service of the hospital. In addition to the staff provided by the hospital, the College maintains a corps of research workers and special assistants who conduct their routine examinations in extension laboratories equipped by the College in rooms adjacent to the wards of the hospital, and who consummate their major investigations in the more completely equipped laboratories of the College building.

The Professors of Medicine and Surgery are directly responsible to the University for the conduct of the instruction in Bellevue Hospital.

**The Neurological Institute.**—By courtesy of the Neurological Institute the section work in Nervous Diseases is offered to third and fourth year students in the wards and Out-Patient Department of this hospital, the students being assigned for ward work in small sections during the third and fourth years. The Neurological Institute is a hospital of considerable size, devoted to the care of nervous diseases and possessing a complete equipment for neurological examination, diagnosis and treatment.

**Manhattan State Hospital, Ward's Island.**—This hospital is devoted to the care of the mentally incompetent of New York City, and has a capacity of 3,600 patients. Through the courtesy of the authorities the Professor of Psychopathology is enabled to offer in its wards clinical instruction, which is conducted during an entire morning, weekly, for eleven weeks in the fourth year.

In addition to the above, members of the Faculty of Cornell University Medical College hold appointments in various hospitals and dispensaries of the city, and are thus enabled to utilize for teaching purposes a great quantity and variety of clinical material. This is used from time to time as necessity or opportunity arises. The major part of the bedside and clinical instruction is, however, purposely conducted in Bellevue Hospital, which is directly opposite the College, and in New York Hospital, which is conveniently located on Fifteenth Street, and may be reached by surface cars in fifteen to twenty minutes.

## REQUIREMENTS FOR ADMISSION.

The Faculty of the Cornell University Medical College are of the opinion that candidates for admission to the medical profession should possess the liberal culture and general education implied by a college degree in Arts or Science. The great advances of recent years in all the natural sciences have led to correspondingly great advances in the practice of medicine and surgery. As a result the usual four-year course in medicine has become so seriously overcrowded that, if the teaching of medicine and surgery is to keep pace with the advance in knowledge, the strictly medical portion of the curriculum must be extended. It was deemed wise to accomplish this result by requiring that the fundamental branches of Chemistry, Physics and Biology be pursued before admission to the Medical College. Since most Colleges granting degrees in Arts and Sciences are amply prepared to provide instruction in these fundamental subjects, it is expected that the result may be accomplished by a *standard of admission which shall require the baccalaureate degree* or its equivalent. Without attempting to enter into a discussion of the relative advantages of the course in Science or Arts, the President and Trustees of Cornell University adopted the requirements advised by the Faculty of the Medical College for admission to the course leading to the degree of M.D., and since September, 1908, only the following classes of candidates are admitted to the Cornell University Medical College:

I. Graduates of approved colleges or scientific schools; or

II. Seniors in good standing in approved colleges or scientific schools upon condition that their faculty will permit them to substitute the first year in the Cornell University Medical College for the fourth year of their college course, and will confer upon them the bachelor's degree\* upon the satisfactory completion of the year's work; or

III. Persons who give evidence by examinations that they have acquired an equivalent education to that signified by a bachelor's degree, and training sufficient to enable them to profit by the instruction offered in the Medical College.

*All candidates* for admission to the Cornell University Medical College must have at least such knowledge of physics, inorganic chemistry and biology as may be obtained in college by a year's work in these subjects, as indicated below.

**Physics.**—The candidate shall have satisfactorily completed a year's work in Physics, including laboratory work, in an approved College.

**Chemistry.**—The candidate shall have satisfactorily completed a year's

---

\*No student under this clause is permitted to enter the second year of the medical curriculum without the bachelor's degree obtained after at least three years of undergraduate college work. This clause is intended to provide for those students who by specially directed or by specially proficient work accomplish the essential requirements for a B.S. or B.A. degree during three years of College residence.

## REQUIREMENTS FOR ADMISSION.

work in introductory inorganic chemistry. This course should have included at least fifty hours of didactic work, and not less than eighty hours of laboratory work.

In addition the candidate shall have satisfactorily completed a course in either qualitative analysis, quantitative analysis, or organic, physiological, or physical chemistry, comprising at least twenty hours of class-room work, and ninety actual hours of laboratory work.

**Biology.**—The candidate shall have satisfactorily completed a year's course in biology, or zoology, including laboratory work, in an approved college.

The Trustees felt that it was unfair to refuse the exceptional student of unusual abilities who has obtained independently an education equivalent to that implied by a degree from a college or scientific school, and there will therefore be examiners appointed from the faculties in the different colleges of Cornell University to determine the qualifications of such as may apply for admission under Rule III of these requirements. The committee in charge of the administration of this rule consists of the President of the University and the Deans of the Faculties of Arts and Sciences and of Medicine. The only instance of admission under Rule III yet encountered involved a graduate of a foreign institution of collegiate rank but which grants no degrees.

## APPLICATIONS FOR ADMISSION.

All applications and communications are to be addressed to the Secretary of the Medical College from whom blank forms of application for admission may be obtained.

Prospective students will often find it to their advantage to file their application in the Spring. Applicants who cannot offer the required amount of Physics, Chemistry or Biology are thus enabled to pursue additional courses in the Summer School.

Inasmuch as all students of medicine in New York State are required by law to have previously had an adequate preliminary education, and as this preliminary education must be certified to as sufficient by the State Educational Department, it is advisable that applicants for admission send to the Secretary of the Medical College, at least a month before entering, their diplomas or properly attested certificates of graduation, bearing the seal of an approved college or scientific school, that the secretary may then obtain the requisite "medical student's certificate" from the State authorities.

## ADMISSION TO ADVANCED STANDING.

Applicants for advanced standing must have met in full the requirements for admission (page 20), and must have already attended the legally required number of courses in an approved regular medical college. Applicants thus qualified may be admitted to the Cornell University Medical College under the following conditions:

1. A properly attested certificate of actual attendance at a registered



## CORNELL UNIVERSITY MEDICAL COLLEGE.

Medical College for the full number of years of medical study for which time credit is asked must be presented and approved.

2. A certificate showing that the student has satisfactorily completed in an approved medical college all of the required work of the years for which credit is asked must be presented and approved.

3. Subject credit will be granted on presentation and approval by the heads of departments of properly attested certificates stating the courses already completed in an approved medical college with the number of hours, didactic and laboratory, devoted thereto, together with the name of the instructor.

4. In the absence of the approved certificate called for in the preceding paragraph (number 3) subject credit for advanced standing will be granted only by examination.

For a list of the subjects for examination see page 72.

Examinations for admission to advanced standing are conducted by heads of departments and may be taken with the class at the end of the session in June or prior to the opening of the session in September. In 1917 these examinations will begin at 9 A.M. on June 4th and September 26th.

### ADMISSION TO SPECIAL COURSES.

Graduates in medicine, or students who desire to pursue a special course without graduation, are admitted to registration as special students, after approval by the head of the department conducting the course. Such special courses do not count in any way as part of the four years' course required of candidates for the degree of doctor in medicine. The courses offered to graduates are outlined on pages 76 to 79. Further information regarding such courses, fees, etc., may be obtained by addressing the Secretary of the Cornell University Medical College, First Avenue, 27th and 28th Streets, New York.

### REQUIREMENTS FOR LICENSE TO PRACTICE MEDICINE IN THE STATE OF NEW YORK.

Graduates of Cornell University are admitted unconditionally to the examinations for license to practice medicine in the State of New York. Further information as to the nature of the requirements of the New York State law regulating the practice of medicine may be obtained by consulting the handbook issued for gratuitous distribution by the New York State Education Department at Albany, N. Y.

*All requirements for admission to examinations for licensure should be filed with the State Education Department at least one week before examination.*



## REQUIREMENTS FOR ADMISSION.

Examinations for license to practice medicine in this State will be held as follows:

	1917	1918	1919	1920
Winter		Jan. 29-Feb. 1	Jan. 28-31	Jan. 27-30
Spring		May 21-24	May 20-23	May 18-21
Summer	June 26-29	June 25-28	June 24-27	June 29-July 2
Autumn	Oct. 2-5	Sept. 24-27	Sept. 16-19	Oct. 5-8

### Places.

New York, Albany, Syracuse, Buffalo.

## CHARGES FOR INSTRUCTION.

### *First Year.*

Registration .....	\$5.00
Tuition .....	150.00
Laboratory fees .....	35.00
	—————\$190.00

### *Second Year.*

Tuition .....	\$150.00
Laboratory fees .....	35.00
	—————\$185.00

### *Third Year.*

Tuition .....	\$150.00
Laboratory fees .....	35.00
	—————\$185.00

### *Fourth Year.*

Tuition .....	\$150.00
Laboratory fees .....	25.00
Final Examination fee.....	25.00
	—————\$200.00

The registration fee is payable only once, on entrance.

The final examination fee is payable on registering for graduation. All other fees are payable at the beginning of the term, but in special cases they may be paid semi-annually in advance. No rebate will be made in any case.

No remission of laboratory fees will be made because of previous instruction elsewhere in the subjects.

Each student is required to pay to the clerk of the College the following amounts to cover breakage in the Laboratories and Dispensary departments:

1st year, Laboratory and Dispensary.....	\$10.00
2d year, Laboratory and Dispensary.....	10.00
3d year, Laboratory and Dispensary.....	10.00
4th year, Dispensary.....	5.00

## CORNELL UNIVERSITY MEDICAL COLLEGE.

A deposit of \$5 will be required of each student who desires to withdraw books from the library.

These deposits, less the amount charged for breakage, will be returned at the end of each year.

All fees for instruction are paid to the office of the Managing Clerk.

Tickets must be taken out and paid for at the beginning of the session.

For Fees of Special Students see pages 76 to 79.

For Fees of Graduate Students see page 83.

### EXPENSES OF STUDENTS.

The following estimate of the annual expenses of a candidate for a degree in the Medical School is based on the statement of students:

	Low.	Average.	Liberal.
Tuition .....	\$190	\$190	\$190
College incidentals .....	20	26	30
Books .....	16	28	35
Room and board.....	227	275	350 up
	<hr/>	<hr/>	<hr/>
Total .....	\$453	\$519	\$605

To these expenses should be added the cost of clothes, laundry and personal incidentals, which must vary with each individual.

### LOCATION AND MODE OF ACCESS.

The main building of Cornell University Medical College is located on First Avenue between 27th and 28th Streets.

The street railway cars of the Third Avenue System on Twenty-eighth and Twenty-ninth Streets and on First Avenue pass the College building. The cars of the N. Y. Railways Company transfer to the crosstown cars on Twenty-third and Thirty-fourth Streets, which, at First Avenue, pass within five blocks of the College buildings. A convenient station of the Subway line is located at Twenty-eighth Street and Fourth Avenue. The nearest stations of the Manhattan Elevated Railroad are at Twenty-eighth Street on the Third and Sixth Avenue lines and at Twenty-third Street on the Second Avenue line.

## GENERAL STATEMENT OF THE PLAN OF INSTRUCTION.

The function of a Medical Department in a University is primarily to produce practitioners of medicine of the highest possible efficiency. The school must include among its students not only those whose life is to be spent in the treatment of disease, but those who intend to become teachers of medicine or of the branches of natural science upon which medicine depends, as well as those who devote their energies to advancing these sciences by research and to work connected with the public service. The Medical Department of the University has therefore developed into a school whose students are to be prepared to become practitioners of medicine and surgery, teachers of these subjects and their subsidiary branches, and investigators of biological problems which pertain to human disease and "preventive medicine." To reach this ideal, and to relieve the Medical Department from instruction in subjects which belong to natural science in general and not strictly to the medical curriculum, it is necessary that the students should have received the best possible preliminary education, which must include, in addition to the mental training implied by the baccalaureate degree, the amount of physics, inorganic chemistry and general biology outlined in the requirements for admission. As these courses are now given in practically all colleges, it suffices to point out their necessity to every prospective student of medicine, and to require that they each be pursued for at least one year as ordinarily given in the college, and then the education preliminary to entering upon the medical course can be considered the best obtainable, though not necessarily the best possible.

In arranging the course of study the subjects pertaining to pure, rather than applied, science are grouped in the first year of the medical course, those of the applied science in the second year, and the so-called practical subjects in the second, third and fourth years.

The fourth year of the medical curriculum is devoted largely to clinical instruction in the various aspects of medicine and surgery, with bedside instruction and ample opportunity for the careful study of medical cases by continuous service in the hospital wards. Some opportunity for elective courses is allowed, but all students must take at least the minimum amount of the subjects which form the basis of the general practitioner's usefulness, and all are thus necessarily prepared for successfully undergoing the usual competition for appointments as hospital internes, positions in the public service, and examinations for licensures by the States.

Any student of exceptional fitness, however, after having completed the first three years' work and who then desires to devote the major part of his time to one or more of the laboratory departments may do so during the fourth year. Such an arrangement can be made only with the approval of the Dean and the heads of the departments concerned. The departments in which the student is engaged shall then determine whether his work has given such satisfaction as would warrant the degree at the end of the year.

Custom and experience are in favor of a long summer vacation, and the

utilization of the cool months alone for teaching. The Faculty have therefore decided on a period of thirty-two actual working weeks exclusive of the time occupied by holidays and examinations. This working period is divided into three terms, the first of eleven, the second of ten, and the third of eleven weeks. By this arrangement it is possible to obtain a certain degree of "concentration" in the teaching of those subjects in which that plan is advantageous, and it is thus also possible to maintain a proper sequence in the curriculum.

**In the first year** anatomy, histology, embryology and advanced chemistry occupy the entire first and second terms. Neurological anatomy and histology, physiological chemistry and physiology complete the year.

**In the second year** the first term is occupied by topographical and special anatomy, the physiology of respiration, circulation, secretion and an advanced course in nutrition. Pharmacy and pharmacology are begun and are carried to completion in the following term.

**In the second term** the laboratory course in general microscopical pathology and demonstrations in pathological anatomy are begun. The course in bacteriology occupies the entire afternoon daily throughout this term. Medicine and surgery are here introduced by a weekly clinic and recitations, followed by bedside sections.

**In the third term** special pathology is studied in the microscopical laboratory and demonstrations in pathological anatomy are continued. Physical diagnosis is taught by lectures, clinics and dispensary sections. An intensive course in laboratory hygiene with field excursions is offered. Obstetrics and Gynecology are introduced by a weekly clinical conference.

**In the third year** the required minimum of instruction in the specialties takes precedence over other exercises in the afternoons of the first term. Small sections of students are instructed in the College Dispensary and in the various hospitals in the fundamentals of Ophthalmology, Urology, Otolology, Laryngology, Dermatology, Pediatrics, Neurology, Psychiatry, Obstetrics, Gynecology and Orthopedics, additional opportunity being offered for advanced elective work in the fourth year. Instruction in each course is at this time confined to the more important phases with which the general practitioner of medicine or surgery should be familiar. Laboratory courses completing Pathology and Clinical Pathology occupy the morning hours.

**In the second and third terms** laboratory courses in surgical anatomy and operative surgery are provided. The work in medicine and surgery is carried forward by lectures, clinics, and daily dispensary sections in physical and surgical diagnosis, and by recitations, for which the class is divided into small sections.

**In the fourth year** the class is divided into sections and each student is assigned for two months to the medical and surgical wards of Bellevue and New York Hospitals, for intensive instruction in medicine and surgery. During this period there are no conflicting exercises the entire time of the student being devoted to the clinical clerkship to which he is assigned.

Each student devotes a half day for another month to similar work in

## *GENERAL STATEMENT OF THE PLAN OF INSTRUCTION.*

the specialties, Orthopedics, Neurology and Gynecology, and he gives his entire time for one week to Urology.

In order to provide for the extensive courses as clinical clerks in Medicine, Surgery and their allied specialties the services of the Cornell Division of New York Hospital and of the Second Division of Bellevue Hospital, which are under the exclusive control of Cornell, have been organized under the direction of the Professors of Medicine and Surgery, giving continuous periods of service throughout the College year to those of the Faculty who form their visiting Staffs. The Staff is augmented by an ample corps of assistant visiting physicians and research workers selected from among the assistant professors, instructors and laboratory workers of the Medical School.

The student is thus introduced directly to the work of the hospital ward, and by continuous service is enabled to study a considerable number of cases from their admission to the hospital to their completion. The student is required to examine patients and record histories which become part of the hospital records, make physical examinations and diagnoses of the patients consigned to their care, to perform clinical examinations in the laboratories of the hospital and college under the direction of a trained instructor from the Department of Clinical Pathology, and to become thoroughly proficient in the history of the diseases met in the wards of a large hospital. This work is carried on under the immediate direction of the Professors of Medicine, Surgery and Therapeutics, and under the constant supervision of a corps of instructors which includes the entire Cornell staff of New York and Bellevue Hospitals and instructors and research workers of the medical school, from its laboratories of Pathology, Bacteriology, Clinical Pathology, Experimental Pathology, Experimental Therapeutics, Chemistry and Physiology.

Following the clerkships is a period of two months at the end of the course during which the student may devote his entire time to such work as he elects. The student thus has the opportunity to further pursue his studies in those subjects which have especially interested him earlier in his medical course. During this period each student is expected to devote his entire time, amounting to not less than thirty hours a week, to the subjects of his choice. His standing in the elective work is rated on the usual University basis, being an estimation of the student's ability to apply himself in an independent way to some advanced problem.

The extensive opportunity for continuous ward work afforded by the curriculum of the third and fourth years in no wise replaces the valuable work afforded by hospital internship, but is in a way preparatory thereto. Every graduate of this medical school is expected to pursue the usual interne service in some hospital, our graduates having little or no difficulty in obtaining the best positions under competitive examination in addition to those appointments directly and indirectly controlled by this College. Without prolonged hospital training no physician should attempt to practice or to teach; and no specialist can be worthy of the name who has not had the broad foundation insured by such a service.

## DETAILS OF THE PLAN OF INSTRUCTION. THE DEPARTMENT OF ANATOMY.

CHARLES R. STOCKARD, M.S., Ph.D., *Professor of Anatomy.*  
J. F. GUDERNATSCH, Ph. D., *Assistant Professor of Anatomy.*  
CHARLES V. MORRILL, A.M., Ph.D., *Instructor in Anatomy.*  
GEORGE PAPANICOLAU, Ph.D., M.D., *Instructor in Anatomy.*  
ROBERT CHAMBERS, JR., A.M., Ph.D., *Instructor in Anatomy.*  
J. H. GLOBUS, A.B., M.D., *Instructor in Anatomy.*  
H. MURAYAMA, *Preparateur in Anatomy.*

### I. Morphology.

**Structure of Man.**—This course considers the structure of the various organs and systems of the human body in the light of their variations and evolutions. The organs of man are analyzed by comparison with the simpler ones of lower mammals and other vertebrates. The relationship of the parts of the organs and systems are also explained by numerous facts gathered from experimental morphological studies of lower vertebrates.

The chief aim is to instill into the student the idea that animal structures are constantly changing and varying, yet are so definite as to lend themselves to logical analysis.

The structure of the integument, muscles, skeleton, alimentary tract, respiratory organs, reproductive and excretory systems, and organs of special sense are demonstrated in the several vertebrate groups and compared with the systems in man. The student should have a previous knowledge of vertebrate comparative anatomy.

Special direction is also given to those students wishing to investigate problems in experimental and comparative anatomy.

Laboratory, 40 hours (elective), and demonstration conferences, 22 hours (required).

*Text-books.*—Wiedersheim's *Comparative Anatomy* and *Bau des Menschen*, Wilder's *History of Man*, together with special works and monographs on the subject.

Professors Stockard and Gudernatsch.

### II. Embryology and Histology.

In this course the intra-uterine development of the human body, the histogenetic differentiation of its organs and the adult microscopic structures of the latter are studied.

The work in *embryology* presupposes a general course in the subject and embraces a brief review of karyokinesis in its various phases; fertilization with consideration of heredity; cleavage as represented in the several types of vertebrate eggs; the processes of gastrulation and formation of germ layers, and a more thorough study of the development of the organs and systems in the bird, pig and human embryo.

## DETAILS OF THE PLAN OF INSTRUCTION.

Serial sections, transverse and sagittal, of embryos at various developmental stages are provided, and models are employed for illustration. The lectures and conferences are devoted to a discussion of the theories of development, and to a comparison of the phases in different groups of vertebrates with the embryology of man as the objective point. Special attention is devoted to those stages of development at which abnormalities, monsters and tumor-like inclusions are most likely to occur. The causes of such anomalies are considered in the light of experimental embryology. The student is directed in collateral reading on these topics.

In that part of the course devoted especially to *general histology* the various types of tissues are studied systematically, both in the fresh condition and by means of stained sections.

The third part of the course comprises a detailed study of *systematic histology*. The microscopic structures of the various organ-systems and organs are discussed extensively, whereby their organogenesis and histogenesis are continually called upon to elucidate the adult conditions. The work is conducted so that the histology of every organ appears as the final stage of its embryology. Fresh, teased material, as well as stained preparations, are used extensively. The structures of the entire body, with the exception of the central nervous system (see Neuro-histology) are covered.

A part of the course is devoted to the training of the students in *histological technique*, viz., the preparation of tissues for microscopic examination. The students will be asked to stain, by the ordinary methods, numerous fresh preparations as well as frozen, paraffin and celloidin sections. They also are given fixed tissues which they are supposed to prepare for paraffin embedding and cutting. In this way they are enabled to make a collection of slides of their own exhibiting the various typical structures.

A special feature of the latter part of the course is to train the students in the diagnosis of different organs. Unstained sections are provided and, after staining, the student is expected to diagnose the tissues and state the reasons for this diagnosis. In this way the student has a chance to see the various structures a number of times, each time from a different body, so that he not only has examined the diagrammatic teaching section of every organ, but very soon learns to recognize the individual variations and slight abnormalities of tissues from different individuals.

Toward the end of the course fresh, unstained tissues are to be diagnosed so that the student is called upon to analyse the structure carefully and to base his diagnosis not on staining qualities, but on the characters of the individual constituents of a tissue.

Laboratory course and lectures—250 hours, October to March. Required of all first year students.

*Text-books.*—Prentiss, *Laboratory Manual and Text-book of Embryology*; Lewis, *Text-book of Histology*; Quain's *Anatomy*, Vols. I and II; Minot, *Laboratory Text-book of Embryology*; Keibel and Mall, *Human Embryology*; Sobotta, *Atlas of Microscopic Anatomy*; Broman, *Normal and Abnormal Embryology*; Kollmann, *Atlas of Embryology*.

Assistant Professor Gudernatsch, Dr. Chambers and Assistants.



### III. Neuro-Histology.

The histology of the central nervous system, together with the fibre tracts and the nuclei, are studied. In connection with this course lectures and demonstrations upon the physiology of the central nervous system are given in conjunction with the department of physiology.

Laboratory, 66 hours. Required of all first-year students.

Dr. Globus and assistant.

### IV. Gross Anatomy of the Human Body.

This is taught by means of laboratory exercises held in the dissecting room at stated hours.

The following are the courses required:

COURSE I. THE UPPER EXTREMITY.

COURSE II. THE HEAD AND NECK.

COURSE III. THE LOWER EXTREMITY.

COURSE IV. THE THORAX.

COURSE V. THE ABDOMEN AND PELVIS.

The required work in each of the above courses includes:

(a) Dissection of the part.

(b) Demonstrations, study, and recitations upon dissected and prepared specimens, and from standard text-books.

(c) An oral examination at the completion of each course.

Total laboratory hours, 288 (minimum). First and second terms of the first year.

COURSE VI. A DEMONSTRATION COURSE. Optional for the first-year students. Demonstrations upon the cadaver, models and dissected preparations amplifying the courses in dissection during the first and second terms of the first year.

#### COURSE VII. STUDY ROOM COURSE IN LIVE ANATOMY.

Since the ultimate aim of dissection is to acquaint the student not merely with the arrangement of structures in the cadaver, but with the facts of the living body, this course follows as a natural sequence to the work of the dissecting room. In it, through the study of living models and of one's own body, there is a practical and a most essential correlation of the facts ascertained in the dissecting room with the features of the living body as they are presented to the eye and to the touch. Optional to first-year students.

#### COURSE VIII. DISSECTION REVIEW.

The work covers a repetition of Courses I-V, giving an opportunity for advanced dissection. Optional to students of the second, third or fourth year. Afternoons.

COURSE IX. TOPOGRAPHICAL ANATOMY.—A study of the relations and topography of the parts of the body by means of frozen section. Cleared prepara-



## DETAILS OF THE PLAN OF INSTRUCTION.

tions and living models are also used. Members of the class must submit a number of drawings made from the sections.

Laboratory, 99 hours. Required during the first term of second year.

*Text-books*.—Cunningham's *Manual of Practical Anatomy*, two vols.; Cunningham's *Text-book of Anatomy*; Spalteholz's *Atlas of Human Anatomy*.

Professor Stockard, Dr. Morrill and assistants.

**COURSE X. NEURO-ANATOMY.**—A course on the gross anatomy of the brain, conducted in the laboratory by means of dissections of the human brain, a study of prepared specimens, sections and models, with demonstrations and recitations.

Laboratory, 22 hours. Required of all first-year students.

Dr. Globus.

### V. Applied Anatomy.

This course is given during the second term of the third year. It is conducted as a laboratory exercise. The students will study dissected and prepared specimens, showing the anatomy of the various regions and upon these, and the whole subject, will demonstrate the important facts of regional and topographical anatomy as applied to the practice of medicine and surgery.

Laboratory, 60 hours.

*Text-book*.—Woolsey's *Applied Surgical Anatomy*.

### VI. Elective Courses Preparatory to the Specialties.

Optional for students of the third and fourth years. These courses offer a thorough review of the embryology, histology and gross anatomy of the following organs and systems:

(a) The eye.

(b) The ear.

(c) The face and neck, including especially the nose and accessory sinuses, the mouth and salivary glands, pharynx and larynx, thyroid and parathyroid glands.

(d) The genito-urinary system, male and female.

(e) The brain and spinal cord.

(f) The thorax and abdomen.

(g) The extremities, especially the joints and their mechanics.

Laboratory, 40 hours. Professor Stockard, and instructors.

### VII. Elective Courses for Advanced Students.

**COURSE I. GENERAL HISTOLOGY.**—This course will comprise a study of the various types of tissues which form the several organs of the vertebrate body. The tissues will be analysed from a phylogenetic and ontogenetic standpoint, and the gradual histogenetic changes from the most elementary to the best differentiated types will be discussed. The structures will be studied not only from the mere morphological standpoint, but the various biological problems involved will be taken into consideration. The close relationship between structure and function will be elucidated.

CORNELL UNIVERSITY MEDICAL COLLEGE.

Twenty lectures, March to June.

Registration not later than January. Assistant Professor Gudernatsch.

COURSE II. PHASES OF HISTOGENESIS.—A series of lectures intended to cover the history of the subject with special considerations of the rôle of movement, proliferation and environment in differentiation.

Ten lectures from April to June. Dr. Chambers.

COURSE III. THE ANATOMY OF THE INFANT.—A course of lectures amplified by demonstrations and the study of preparations. In this course the anatomy of the new-born infant is considered from the standpoints, morphologic, topographic, and physiologic, and in addition the changes in the osseous, nervous (including special sense) vascular, digestive, and genito-urinary systems occurring after the sixth month of intra-uterine life are studied in detail.

Twenty lectures arranged for in advance. Professor Stockard.

COURSE IV. DEVELOPMENTAL ARRESTS AND STRUCTURAL DEFICIENCIES.—A discussion of the imperfections in development which may occur during various periods from the maturation of the germ cells, fertilization of the egg on through embryonic and fetal development.

Fifteen lectures. Professor Stockard.

COURSE V. EXPERIMENTAL EMBRYOLOGY.—These lectures begin with the history of the subject and the various aspects of the problems concerned. The experimental analysis of embryological processes is then considered from the several points of view.

Twenty lectures with conferences considering the recent literature of the subject. March to June. Professor Stockard.

COURSE VI. HISTOLOGICAL SEMINAR AND LABORATORY WORK.—Choice of topic to be arranged.

Entire year. Assistant Professor Gudernatsch.

COURSE VII. REGIONAL ANATOMY.—This course will comprise a thorough review by means of dissections, demonstrations and reading of the gross anatomy, histology and development of selected regions of the body and of organs and organ systems. The type of instruction will depend on the individual needs of the students and will be arranged after conference with the instructor.

Laboratory and demonstration, 3 half days a week for two months.

Dr. Morrill and assistants.

COURSE VIII.—FOURTH YEAR ELECTIVES.—The Department of Anatomy will arrange a schedule of work to fit individual cases for a limited number of *fourth year students* desiring to devote the major part or all of their elective time. General or special morphological subjects embracing systematic study and work in embryology, histology and gross anatomy with introductory research problems could be taken for part of the time through almost the entire fourth year. Such work will be designed, in cases where sufficient time is available, to equip the student for positions as laboratory assistant.

### VIII. Anatomical Research.

To students desiring to pursue research in anatomical subjects the equipment of the entire department is available. Members of the staff will gladly assign subjects and direct the progress of advanced work of this type. The work may be elected by students who enter with advanced credits, or by any student who has completed the preliminary courses in descriptive anatomy, histology and embryology. The course is also open to graduates in medicine or biology.

#### SUMMARY.

	<i>First Year</i>	<i>Second Year</i>	<i>Third Year</i>
Morphology .....	22 hours	.....	.....
Embryology and Histology....	250 hours	.....	.....
Neuro-Histology .....	66 hours	.....	.....
Gross Anatomy .....	308 hours	.....	.....
Topographical Anatomy .....	.....	99 hours	.....
Neuro-Anatomy .....	22 hours	.....	.....
Applied Anatomy .....	.....	.....	60 hours

#### PHYSIOLOGY.

GRAHAM LUSK, Ph.D., *Professor of Physiology.*

JOHN R. MURLIN, A.M., Ph.D., *Assistant Professor of Physiology.*

CARL J. WIGGERS, M.D., *Assistant Professor of Physiology.*

HAROLD F. PIERCE, Ph.B., *Assistant in Physiology.*

H. V. ATKINSON, M.Sc., *Assistant in Physiology.*

Instruction in physiology begins in the third term of the first year. The work of this term consists of four lectures a week, three laboratory sessions of three hours each, two conference quizzes and a written review. The subjects covered in this first half of the work include the physiology of muscle and nerve, the central nervous system, the special senses and reproduction.

The remainder of the course in physiology is given during the first term of the second year. There is a daily lecture. Following this, during three morning periods of three hours each, the student is in the laboratory and executes for himself the more important experiments concerned with animal and human physiology. The phenomena of secretion, respiration, circulation and metabolism are taken up experimentally. The students work in small groups under the personal guidance and criticism of the instructors and are frequently quizzed on the significance and interpretation of the experimental results.

The written review and conference quizzes continue to the end of the course. In addition, in this portion of the work there is held once in two weeks a seminar at which the students are expected to present in abstract form reviews of important physiological papers of classic or current interest. The student is encouraged to use the library as he does the laboratory, since both are essential to correct thinking. A knowledge of French and especially of German is desirable in this connection.

Research workers who will give half or the whole of their day will be welcomed in the laboratory and granted every facility.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

*Text-books.*—Starling's or Howell's *Physiology*; Lusk, *Science of Nutrition*; Wiggers, *Circulation in Health and Disease*; Collateral Reading, scientific journals.

### SUMMARY.

	<i>First Year</i>	<i>Second Year</i>
Lectures .....	44 hours	66 hours
Recitations .....	33 "	28 "
Seminar .....	.....	11 "
Laboratory .....	99 "	66 "

### CHEMISTRY.

STANLEY R. BENEDICT, *Ph.D., Professor of Chemistry.*

JOSEPH C. BOCK, *Ch.E., Instructor in Chemistry.*

EMIL OSTERBERG, *Instructor in Chemistry.*

THERESA LEVY, *A.B., Assistant in Chemistry.*

The instruction in chemistry is concentrated in the first year, and is arranged upon the assumption that the student is already thoroughly grounded in the principles of chemistry and in physics. The object aimed at is to impart that fundamental knowledge of organic and physiological chemistry which is necessary to the comprehension of the bearings of chemistry upon physiology, pharmacology and medicine.

**Lectures.**—There will be two lectures weekly during the first and second terms upon organic chemistry. The subject will be discussed to an extent sufficient to impart a knowledge of the principles of combination and reactions of the carbon compounds, and the properties and relationships of those which are of physiological, toxicological or therapeutical interest.

In the third term three lectures weekly will be devoted to Physiological Chemistry.

**Recitations and Conferences.**—There will be one recitation weekly during the second term and two weekly during the third. These recitations are largely in the nature of a conference.

**Laboratory Work.**—During the second term there will be two sessions weekly, each of two and one-half hours, in organic chemistry. This work will be directed mainly to the preparation and examination of typical organic compounds, and will furnish practice on those points in which laboratory manipulations are desirable.

During the third term there will be three three-hour laboratory sessions in physiological and clinical chemistry. This course will include the study of the reactions of the carbohydrates, fats and proteins; of the composition of the salivary, gastric, pancreatic and intestinal secretions and the bile, and their actions in digestion; of the fæces, urine, blood and milk; and of the

## DETAILS OF THE PLAN OF INSTRUCTION.

examination of pathological fluids, concretions, stomach contents, etc. The study of metabolism will receive particular attention. The arrangement of this course is in coaptation with those in physiology and in clinical pathology.

In the laboratory courses each student is supplied with all apparatus and chemicals required.

**Chemical Pathology.**—Elective in the fourth year. A practical course in the chemical analysis of the blood. The laboratory work is supplemented by informal lectures and discussions. Hours to be arranged.

The lectures in this subject will deal primarily with the abnormal phases of metabolism taking place in certain diseases. One lecture weekly during the third term to fourth-year students.

**Research.**—The laboratory will be open during "optional hours" to students of any year who desire to prosecute advanced work or research, subject to the regulations of the office.

### SUMMARY.

	<i>First Year</i>
Recitations .....	32
Laboratory .....	149
Lectures .....	75

*Text-books.*—McCollum, *Organic Chemistry*, for students of Medicine and Biology; Moore, *Laboratory Manual*; Hawk, *Practical Physiological Chemistry*, fifth edition.

## PHARMACOLOGY AND MATERIA MEDICA.

ROBERT ANTHONY HATCHER, Ph.G., M.D., *Professor of Pharmacology and Materia Medica.*

CARY EGGLESTON, M.D., *Instructor in Pharmacology and Materia Medica.*

Work in this department is offered during the second year.

### *Materia Medica and Pharmacy.*

*I. Elementary Pharmacy, Toxicology and Principles of Prescription Writing.*—The work in this course occupies four hours a week during the first trimester. Twenty hours will be devoted to the consideration of crude drugs, and making pharmacopœial preparations of the different pharmaceutical classes (such as extracts, pills, etc.) by the students. Each laboratory exercise will be preceded by an informal discussion of the work to be done and its relation to therapeutics.

The remainder of the course will be devoted to prescription writing and incompatibilities.

### *Pharmacology.*

*II. Lectures.*—During the second and third trimesters forty-five hours will be devoted to lectures, conferences and written reviews on Systematic Pharmacology. The lectures will be illustrated in part by demonstrations and by tracings taken from research experiments. Professor Hatcher.

## CORNELL UNIVERSITY MEDICAL COLLEGE

*III. Laboratory.*—Concurrently with the lectures on Systematic Pharmacology, ninety hours will be devoted to the laboratory study of the subject. The experiments are designed to illustrate a wide range of pharmacologic actions, the more important drugs being considered with reference to their actions on different structures. Professor Hatcher and Dr. Eggleston.

*IV. Research. Elective.*—Students will be encouraged to conduct original research under the supervision of the members of the staff. Such work affords a valuable insight into pharmacologic methods, and assists in the formation of a correct estimate of the original work of others.

### SUMMARY.

	<i>Second Year.</i>
Lectures .....	32 hours
Laboratory .....	126 hours

*Text-book.*—Sollmann, *A Text-book of Pharmacology.*

### MEDICINE.

- LEWIS A. CONNER, M.D., *Professor of Medicine.*  
 HOMER F. SWIFT, M.D., *Associate Professor of Medicine.*  
 EUGENE F. DUBOIS, M.D., *Assistant Professor of Medicine.*  
 WALTER W. PALMER, M.D., *Assistant Professor of Medicine.*  
 WALTER L. NILES, M.D., *Assistant Professor of Medicine.*  
 THOMAS WOOD HASTINGS, M.D., *Professor of Clinical Pathology.*  
 ALEXANDER LAMBERT, M.D., *Professor of Clinical Medicine.*  
 CHARLES E. NAMMACK, M.D., *Professor of Clinical Medicine.*  
 RICHARD WEIL, M.D., *Professor of Experimental Medicine.*  
 WILLIAM C. THRO, M.D., *Assistant Professor of Clinical Pathology.*  
 WILLIAM H. SHELDON, M.D., *Assistant Professor of Clinical Medicine.*  
 MAX EINHORN, M.D., *Lecturer on Diseases of the Stomach.*  
 DAVID P. BARR, M.D., *Instructor in Medicine.*  
 HAROLD E. B. PARDEE, M.D., *Instructor in Medicine.*  
 EDWARD MILTIMORE, M.D., *Instructor in Medicine.*  
 NANCY JENISON, M.D., *Instructor in Medicine.*  
 WALTER H. BRUNDAGE, M.D., *Instructor in Medicine.*  
 JOHN H. RICHARDS, M.D., *Instructor in Clinical Pathology and Medicine.*  
 HANS J. SCHWARTZ, M.D., *Instructor in Clinical Pathology.*  
 RALPH G. STILLMAN, M.D., *Instructor in Clinical Medicine.*  
 HENRY WIRT JACKSON, M.D., *Instructor in Clinical Pathology.*  
 ARTHUR L. HOLLAND, M.D., *Instructor in Clinical Medicine.*  
 RUSSELL L. CECIL, M.D., *Instructor in Clinical Pathology and Assistant in Medicine.*  
 JOHN P. PETERS, M.D., *Assistant in Medicine.*  
 SAMUEL LEVINE, M.D., *Assistant in Medicine.*  
 EMILY J. SEAMON, M.D., *Assistant in Experimental Medicine.*  
 JESSIE M. RAHE, A.B., *Assistant in Experimental Medicine.*  
 CHARLES H. NAMMACK, M.D., *Clinical Instructor in Medicine.*

## DETAILS OF THE PLAN OF INSTRUCTION.

The course in Medicine is begun in the second trimester (term) of the second year and is continued uninterruptedly through the third and fourth years. Instruction is given by means of recitations; didactic lectures; laboratory exercises; amphitheatre clinics; section classes in the wards and in the College Dispensary and clinical clerkships in the wards of Bellevue and New York Hospitals.

### SECOND YEAR.

**Introductory Clinics.**—The subject of Medicine is introduced in the second trimester by a series of elementary clinics designed to acquaint the student with the simpler and more obvious aspects of important and common types of disease and to stimulate in him the habits of close observation. These clinics are held by Professor Conner once a week during the second and third trimesters.

**Recitations.**—The student is required to read up on the subjects considered in each clinic and to attend one recitation a week dealing with these subjects.

**Physical Diagnosis.**—During the third trimester the principles of physical diagnosis are presented by lectures and demonstrations by Doctor Pardee, and the students, in small sections, are given training in the various methods of physical examination. Only normal subjects are examined and the importance of a thorough familiarity with normal physical signs under varying conditions is insisted on.

**Ward Classes.**—In the third trimester the introductory clinics are supplemented by bedside teaching to small sections in the wards of Bellevue Hospital by Professors Lambert and Nammack.

### THIRD YEAR.

**Lectures.**—During the first and second trimesters one lecture a week is given by Professor Conner upon the general symptomatology of disease. Each of the commoner and more important symptoms is considered in detail with special reference to the physiological processes involved.

**Recitations.**—In this year the subject of Medicine is covered systematically and thoroughly by recitations which are held three times a week during the second and third trimesters. Doctor Barr.

**Physical Diagnosis.**—This subject is continued in the third year during the second and third trimesters. The class is divided into small groups, each of which in turn is assigned to service in the medical clinic of the College Dispensary. The students, under careful supervision, are expected to take histories and to make and record physical examinations; and systematic instruction in pathological physical diagnosis is given by Assistant Professor Sheldon and his assistants.

**Clinics.**—In the first and third trimesters general medical clinics are held once a week in the College Dispensary by Professor Conner. During



the first term these consist of clinical conferences upon diseases of the gastro-intestinal tract, in which the roentgenological findings are presented by Professor Cole and the surgical aspects of the cases are discussed by Professors Hartwell and Woolsey. In the third term are presented such ambulatory types of medical diseases as are usually not seen in the hospital wards. In this trimester also a medical clinic is held once a week in Bellevue Hospital for both the third and fourth year students by Professor Swift.

**Clinical Pathology.**— See page 39.

FOURTH YEAR.

The time allotted to medicine in the last year is devoted entirely to practical work in the wards of New York and Bellevue Hospitals and to elective subjects. Each student is required to serve for a period of two months as clinical clerk in the medical wards; the time being divided equally between New York and Bellevue Hospitals. During this period his entire day is spent in the wards and clinical laboratories. A certain number of patients are assigned for study to each student. Under careful supervision he takes the histories, makes physical examinations, performs the various necessary laboratory examinations and records the progress of the cases. He is expected to be present at all post mortem examinations and to attend the clinical pathological conferences. Each afternoon teaching rounds for the entire group on duty are made by some member of the Attending Staff. In the New York Hospital instruction is given by Professor Conner, Assistant Professor DuBois, and Doctors Stillman and Pardee; in Bellevue Hospital by Professors Meara and Swift, Assistant Professors Niles and Goodridge and Doctors Peters and Cecil.

**Elective Studies.**—The latter part of the fourth year is available for elective work. Provision has been made whereby a limited group of students may at this time continue their clinical clerkships in medicine at the New York and Bellevue Hospitals for a period of one or more months or elected to devote their time to laboratory work. The following courses are offered:

I. Clinical Clerkships, New York Hospital, one month, all day, 5 students.

II. Clinical Clerkships, Bellevue Hospital, one month, all day, 5 students.

III. Clinical electrocardiography and polygraphy, two afternoons a week for one month, Mondays and Wednesdays, or Wednesdays and Fridays, or Mondays and Fridays. Limited to eight students. Doctor Pardee, at the New York Hospital.

IV. Course in advanced clinical pathology: Blood chemistry, identification of poisons in urine, preparations of standard solutions, blood morphology. Three afternoons a week for one month (Tuesday, Thursday and Saturday) limited to 5 students. Doctor R. G. Stillman, at the New York Hospital.

The following Elective Courses at the college laboratory of Clinical Pathology may be pursued by 6 students of the 4th year class during the latter part of the 3rd trimester.



## DETAILS OF THE PLAN OF INSTRUCTION.

V. Clinical Bacteriology and Methods of Examinations for Spirochaetosis. Two-hour demonstrations three times weekly for 8 weeks, 48 hours.

VI. Serum Diagnosis and Tuberculin Diagnosis, particularly Complement Fixation and the Wassermann reaction, three-hour demonstrations 4 times weekly for 8 weeks, 96 hours.

VII. Exudates and Transudates, including cerebro-spinal-fluid and intrathecal injections for therapy. Methods of examination. Two-hour demonstrations, 2 times weekly for 6 weeks, 24 hours.

VIII. Serum, Vaccine and Tuberculin Therapy. Two-hour demonstrations, 2 times weekly for 6 weeks, 24 hours.

IX. Examination of Feces, chemical, bacteriological, and for intestinal parasites. Two-hour demonstrations 2 times weekly for 6 weeks, 24 hours.

X. Clinical Chemistry, Urine examinations, qualitative and quantitative. Phthalein test for renal function. Chemical tests of Blood Serum and Blood. Two-hour demonstrations 3 times weekly for 6 weeks, 36 hours.

### CLINICAL PATHOLOGY.

Instruction in Clinical Pathology is given to the third-year students, to the fourth-year students and to graduate students who apply for instruction in some particular subject.

In the third year the class receives instruction throughout the second term two hours five days in the week—a total of twelve hours a week and one hundred hours for the course—which covers the teaching and practical application of methods for the examinations of urine, blood and blood serum, sputum, exudates and transudates, spinal fluid, gastric contents, feces, and for the bacteriological examination of clinical material. Special demonstrations of unusual specimens, of blood diseases, and of parasites are also arranged for. After the completion of this preliminary training in laboratory methods, the students are expected, under the supervision of a demonstrator, to make proper examinations of laboratory material from cases which have been assigned them in the dispensary and hospital clinics. The third-year students, while assigned by sections to work in the medical clinic of the dispensary, are also expected to examine the laboratory material from dispensary cases.

During the summer months, from June to October, there is offered the opportunity for valuable routine work in the laboratory of Clinical Pathology, and during this time particularly the student will be encouraged to follow out original lines of work for which there is little time during the scholastic year.

In the fourth year, as in the last semester of the third year, the students are expected to make proper laboratory examinations for the study of cases assigned to them in the medical clinics, the dispensary and the hospital, and this work is under the supervision of one of the instructors in the laboratory of the Department of Clinical Pathology.

Fourth-year students, while assigned by sections to clinical clerkships in the wards of Bellevue Hospital, will make the necessary laboratory examinations in the division laboratory under the supervision of an assistant in Clinical Pathology.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

During the fourth year the students are urged to devote some of their time to the pursuit of investigation in some subject pertaining to clinical pathology.

### SUMMARY.

#### *Medicine.*

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures .....	11 hours	21 hours	.....
Recitations .....	21 hours	30 hours	.....
Clinics .....	42 hours	55 hours	.....
Clinical Clerkships .....	.....	.....	336 hours*
Sections .....	8 hours	18 hours	.....
Elective .....	.....	.....	(Variable)

#### *Clinical Pathology.*

Laboratory, recitations and lectures..... 110 hours

---

\* Includes General Therapeutics.

*Text-books.*—Osler, *Practice of Medicine*; Butler, *Diagnostics of Internal Medicine*; Tyson, *Physical Diagnosis*; Salinger and Kalteyer, *Medicine*; Emerson's *Clinical Diagnosis*; Thompson, *Occupational Diseases*.

### DEPARTMENT OF GENERAL THERAPEUTICS.

FRANK S. MEARA, M.D., *Professor of Therapeutics.*

MALCOLM GOODRIDGE, M.D., *Assistant Professor of Therapeutics.*

MONTGOMERY H. SICARD, M.D., *Instructor in Therapeutics.*

This department, which is essentially one of Applied Therapeutics, co-operating closely with the Department of Chemistry, Pharmacology and Materia Medica, Physiology, Applied Pharmacology, and Experimental Therapeutics on the one hand, and with the Department of Medicine on the other, will seek to correlate these different fields of work so far as they relate to the treatment of the individual sick.

It will be the effort of this department to make the courses preëminently practical, and to offer to the student something tangible in his future relation to the patient as medical advisor. To this end the following courses will be offered:

**Didactic Lectures.**—These lectures will deal with the theories and modes of therapy and with the application of therapeutic measures, but always with reference to definite types of disease.

One hour a week throughout the third year. Required of third year students. Professor Meara.

**Clinical Clerkships.**—In conjunction with the Department of Medicine this department will offer to each student a "clerkship" in the wards of Bellevue Hospital for a continuous period of service, half of which time will be devoted especially to problems of medicine and half to those of therapeutics. Each student will have assigned to him a group of cases for study. He will take the histories, make a record of his own examinations

## DETAILS OF THE PLAN OF INSTRUCTION.

of the cases and the progress of the patients, and will make examinations of the urine, blood, stomach contents, fæces, etc., under the supervision of the resident clinical pathologist assigned to this service. The student will be quizzed daily, and his work viséd by an assistant in the department, and will take part in conferences held by the Head of the Department on the subject matter of his assignments. He will follow his cases until their discharge from the ward, or, if the case comes to autopsy, will be present to assist and be given instruction at the section.

The student will follow the outline of the work done by the research assistants and fellows on his cases, and new cases will be assigned to him as the old ones are discharged. At present, assistants from the Departments of Medicine, Physiology, and Experimental Therapeutics, and a fellow in Medicine, are assigned to this work.

**Recitations.**—Recitations by an instructor will include those subjects to which this form of instruction is best adapted.

Three hours a week for one half term, March to May. Required of third year students. Dr. Goodridge.

**Section Work in the College Dispensary.**—Students in the fourth year, during their period of "clinical clerkship," will be instructed in the College Dispensary, the material of which affords a different class of cases from those observed in the wards of the hospital. Dr. Sicard.

**Original Work.**—An opportunity is afforded for those who show special adaptability to carry forward therapeutic work along the lines of original investigation.

### SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures .....	32 hours	22 hours
Clinical Clerkships* .....	.....	*
Recitations .....	16 hours	11 hours

\*See also Department of Medicine.

### SURGERY.

LEWIS A. STIMSON, M.D., *Professor of Surgery.*

CHARLES L. GIBSON, *Associate Professor of Surgery.*

JOHN A. HARTWELL, M.D., *Assistant Professor of Surgery and Professor of Clinical Surgery.*

ALFRED S. TAYLOR, M.D., *Professor of Operative Surgery and Lecturer on Surgery.*

GEORGE WOOLSEY, M.D., *Professor of Clinical Surgery.*

WILLIAM B. COLEY, M.D., *Professor of Clinical Surgery.*

JOHN ROGERS, M.D., *Professor of Clinical Surgery.*

IRVING S. HAYNES, M.D., *Professor of Clinical Surgery.*

HOWARD LILIENTHAL, M.D., *Professor of Clinical Surgery.*

JAMES MORLEY HITZROT, M.D., *Assistant Professor of Clinical Surgery.*

BURTON J. LEE, M.D., *Assistant Professor of Clinical Surgery.*

PERCY R. TURNURE, M.D., *Assistant Professor of Clinical Surgery.*

JOSEPH P. HOGUET, M.D., *Instructor in Surgery.*

CORNELL UNIVERSITY MEDICAL COLLEGE.

KENNETH BULKLEY, M.D., *Instructor in Clinical Surgery.*  
JAMES WORCESTER, M.D., *Instructor in Clinical Surgery.*  
JAMES H. KENYON, M.D., *Instructor in Clinical Surgery.*  
BENJAMIN VANCE, M.D., *Instructor in Surgical Pathology.*  
FENWICK BEEKMAN, M.D., *Instructor in Operative Surgery and Assistant in Clinical Surgery.*  
JOHN C. A. GERSTER, M.D., *Instructor in Operative Surgery.*  
HAROLD E. SANTEE, M.D., *Instructor in Operative Surgery and Assistant in Clinical Surgery.*  
HARRY VAN NESS SPAULDING, M.D., *Instructor in Operative Surgery.*  
EDWARD MCP. ARMSTRONG, M.D., *Assistant in Clinical Surgery.*  
MORRIS K. SMITH, M.D., *Assistant in Clinical Surgery.*  
SUMNER EVERINGHAM, M.D., *Assistant in Clinical Surgery.*  
JACK V. BOHRER, M.D., *Assistant in Clinical Surgery.*  
GUILFORD S. DUDLEY, M.D., *Assistant in Clinical Surgery.*  
RICHARD W. BOLLING, M.D., *Assistant in Clinical Surgery.*  
ARTHUR E. HOAG, M.D., *Clinical Instructor in Surgery.*  
LUCIUS A. WING, M.D., *Clinical Instructor in Surgery.*  
ANNA TJOMSLAND, M.D., *Clinical Instructor in Anaesthesia.*  
WILLIAM L. SOULE, M.D., *Clinical Instructor in Anaesthesia.*

Surgery is taught in the recitation room, at the bedside, in the dispensaries, at hospital clinics, and by lectures.

**In the second year** the students are required to attend recitations in surgery, and are instructed in surgical examination and diagnosis in the College Dispensary.

**In the third year** recitations are continued upon regional surgery; the class is instructed in sections in the New York Hospital in history taking and methods of surgical examination and diagnosis, three hours a week for the first term, and one hour a week in minor surgery in the College Dispensary in the second term.

Formal clinics, including those on fractures and dislocations, are held in Bellevue Hospital, thirty-three lectures are given by the Professors of Surgery, and a college clinic for diagnosis is held once a week throughout the term, at which the students are required personally to examine and report upon the cases.

In the second and third terms students are instructed at the New York Hospital, where practical instruction by operative and post-operative work is given by the Adjunct Professor of Surgery. In the third term the students serve as clinical clerks in Bellevue and New York Hospitals.

Operative surgery is taught in this year. The course consists of recitations, operative work on the cadaver, and the application of bandages and plaster dressings. As the material is abundant, each member of the class will perform the principal operations.

**In the fourth year** the students in the first term receive clinical instruction, in small groups in several hospitals and dispensaries, on general

## DETAILS OF THE PLAN OF INSTRUCTION.

surgery and the special branches—eye, ear, nose and throat, urology, gynecology, dermatology and orthopædics and may attend the lectures and clinics.

The members of the sections are trained in the examination of patients, the dressings of wounds and fractures, the administration of anesthetics, and assisting at operations.

During the second term the students serve as clinical clerks in the surgical service of the Bellevue and New York Hospitals for two months.

The opportunities for instruction in the special branches are exceptionally ample. There are several clinical teachers in each subject, each with hospital and dispensary services. The student will be enabled directly to examine and study cases, and will have a certain choice as to the time given to each branch.

Instruction in practical surgery under the direction of the Adjunct Professor of Surgery is continued at the New York Hospital throughout the third term.

Lectures on special topics are given in a lecture course in the first term, to which students of all the classes are admitted, but the more intensive instruction of the fourth year in the Department of Surgery is given in the wards of Bellevue Hospital during the second term.

### HOSPITAL WORK. •

The Cornell University Medical College through its control of the first surgical service of the New York Hospital and the second surgical division of the Bellevue Hospital possesses every facility necessary for the efficient teaching of practical surgery and surgical pathology.

The Staff of Instruction at the New York Hospital is at present organized as follows:

#### NEW YORK HOSPITAL, CORNELL (FIRST SURGICAL) DIVISION.

CHARLES L. GIBSON, *Adjunct Professor of Surgery, Attending Surgeon.*

JAMES M. HITZROT, *Assistant Professor of Clinical Surgery, Associate Surgeon.*

BURTON J. LEE, *Assistant Professor of Clinical Surgery, Associate Surgeon.*

The work is carried on in collaboration with the additional appointees from the Department of Pathology.

The division consists of about 60 surgical beds and a variable proportion of the children's service. The service is acute in character, and is particularly rich in the graver emergency and traumatic material.

Attached to this division is also a large Dispensary (Tuesday, Thursday and Saturday mornings), which furnishes valuable material for instruction and includes departments in urology, orthopedics, gynecology and dental surgery.

The resources of the Pathological Department under Professor Elser afford valuable opportunities for the study of surgical pathology, and an intimate

## CORNELL UNIVERSITY MEDICAL COLLEGE.

connection between the two departments will be maintained. With the further organization of this new service opportunities for the pursuit of original work and research will be developed.

Instruction as now arranged consists of bedside instruction, diagnosis, operative and post-operative clinics, practical instruction in sections (with utilization of the Dispensary clinical material) and clinical clerkships. This last course is given in the second term of the fourth year. The students, divided into small groups, spend most of their time for five weeks in the hospital. They are assigned certain patients, and these they interrogate, make physical examinations, and carry out suitable investigations in clinical pathology. The course of each patient is studied thoroughly, both independently by the student and in connection with the Attending Staff, and at operation the student is given suitable opportunities to become familiar with the necessary technical procedures and pathological findings. A review and study of the pathological material is held three times a week under the direction of Dr. Lee. In this course the student is encouraged to develop his work along his own initiative, while suitable supervision is furnished to insure efficiency.

Instruction in practical surgery, along lines similar to those adopted at the New York Hospital, is also organized at the House of Relief (Hudson Street Hospital) under the direction of the following staff:

PERCY R. TURNURE, M.D., *Assistant Professor of Clinical Surgery, Attending Surgeon.*

JAMES H. KENYON, M.D., *Instructor in Clinical Surgery, Associate Attending Surgeon.*

FENWICK BEEKMAN, M.D., *Assistant in Clinical Surgery, Assistant Attending Surgeon.*

RICHARD W. BOLLING, M.D., *Assistant in Clinical Surgery, Assistant Attending Surgeon.*

The Second Surgical Division of Bellevue Hospital is under the care of the Cornell University Medical College. Its Staff has been organized as follows:

### BELLEVUE HOSPITAL, CORNELL (SECOND SURGICAL) DIVISION.

LEWIS A. STIMSON, M.D., *Professor of Surgery, Consulting Surgeon.*

JOHN A. HARTWELL, M.D., *Assistant Professor of Surgery, Director of Surgery.*

GEORGE WOOLSEY, M.D., *Professor of Clinical Surgery, Visiting Surgeon.*

JOHN ROGERS, M.D., *Professor of Clinical Surgery, Visiting Surgeon.*

KENNETH BULKLEY, M.D., *Instructor in Clinical Surgery, Associate Visiting Surgeon.*

JAMES WORCESTER, M.D., *Instructor in Clinical Surgery, Associate Visiting Surgeon.*

BENJAMIN VANCE, M.D., *Instructor in Surgical Pathology, Pathologist to the Cornell Division.*

## DETAILS OF THE PLAN OF INSTRUCTION.

FENWICK BEEKMAN, M.D., *Instructor in Operative Surgery, Adjunct Assistant Visiting Surgeon.*

EDWARD MCP. ARMSTRONG, M.D., *Assistant in Clinical Surgery, Adjunct Assistant Visiting Surgeon.*

SUMNER EVERINGHAM, M.D., *Assistant in Clinical Surgery, Adjunct Assistant Visiting Surgeon.*

JACK V. BOHRER, *Assistant in Clinical Surgery, Adjunct Assistant Visiting Surgeon.*

GUILFORD S. DUDLEY, *Assistant in Clinical Surgery, Adjunct Assistant Visiting Surgeon.*

ANNA TJOMSLAND, M.D., *Clinical Instructor in Anaesthesia, Anaesthetist.*

The Division consists of 90 surgical beds in addition to those devoted to surgical pediatrics, genito-urinary diseases and gynæcology, the hospital instruction in which is outlined under their respective departments. The service is so arranged that an Assistant Professor or a Clinical Professor is on continuous duty throughout the College year.

In addition to the regular hospital appointees the College supplies a special nurse to assist in the cases under investigation and in the work of the surgical clerks. The hospital interne staff perform the routine duties of the wards, and are assisted in history taking, dressing, etc., by the surgical clerks, who spend their entire day in the wards during their period of clerkship, these privileges being extended exclusively to the students of the Cornell University Medical College.

Research workers are assigned from the laboratory of Clinical Pathology and Surgical Pathology of the College so that the more intricate problems of nutrition, serumtherapy, bacteriology, etc., arising in connection with the diagnosis and treatment of patients, may find ultimate solution in the College laboratories, thus supplementing the facilities afforded by the hospital itself.

**Surgical "Clerkships."**—The intensive ward teaching is done under this head in the wards of the New York and Bellevue hospitals during two months of the fourth year. The students are assigned in two divisions under the direction respectively of an Adjunct or an Assistant Professor aided by the corps of instruction.

Each student devotes his entire day to the work continuously for eight weeks. He is assigned to the study of a certain number of patients, and is enabled to follow the complete course of the disease from the admission of the patient to his discharge. In the event of death he is present at the autopsy should one be performed.

In this way the student has an opportunity to follow to a conclusion a large number of surgical affections, and he is instructed in the proper methods of surgical history taking, surgical physical examinations, surgical dressings, operative surgery as seen at the operating table. He is also instructed in the laboratory study, including bacteriology, of the blood, urine, fæces, exudates, and transudates. This laboratory work is done under the direction of the staff in the laboratories connected with the wards and in



## CORNELL UNIVERSITY MEDICAL COLLEGE.

the College laboratories, and is under the immediate charge of the Clinical Pathologist to the Division. As a supplement to the above teaching, each student spends some time in the gross pathological museum, where he is instructed in a series of lesions illustrating the cases under his observation.

By this method of instruction, each student comes into intimate contact with a large number of surgical patients, and is required to make a complete study of each one from every standpoint. He has constantly at his service two or more of the teaching staff to guide him in his work, and impress on him the proper methods of observation and study.

### SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures .....	21 hours.	22 hours.	22 hours.
Recitations .....	10 hours.	30 hours.	.....
Clinics .....	33 hours.	62 hours.	.....
Sections .....	8 hours.	50 hours.	36 hours.
Operative Surgery .....	.....	40 hours.*	.....
Clinical Clerkships .....	.....	.....	294 hours.
Elective .....	.....	.....	<i>Variable</i>

\* Not offered 1917-18.

*Text-book.*—*Arnhurst's Text-book of Surgery*; Rose and Carless, *Surgery*; Choyce. *A System of Surgery*; Thompson and Miles, *Manual of Surgery*, 5th Edition.

*Collateral Reading.*—Lexer-Bevan, *General Surgery*; Stimson, *Fractures and Dislocations*; Binnie, *Operative Surgery*, 5th Edition.

### OBSTETRICS.

J. CLIFTON EDGAR, M.D., *Professor of Obstetrics and Clinical Midwifery.*

HAROLD C. BAILEY, M.D., *Instructor in Obstetrics.*

HARVEY C. WILLIAMSON, M.D., *Instructor in Obstetrics.*

Instruction in obstetrics will be given during the second and third years by

1. Recitations. 2. Lectures. 3. Obstetric clinics and conferences. 4. Attendance upon cases of confinement. 5. Manikin practice and section work. 6. Obstetric histology, pathology, and bacteriology.

1. **Clinics** will be held in obstetrics weekly during the third term of the second year.

2. **The Lectures** comprise a systematic course running through part of the third year, upon the physiology and pathology of obstetrics.



## DETAILS OF THE PLAN OF INSTRUCTION.

These lectures are theoretical to a limited extent only, being mainly demonstrative and illustrative in character. To this end ample blackboard space is used, as well as a collection of pelves, entire, normal and deformed, mesial sections of the same, and in addition a supply of diagrams, charts, selected plaster, composition, and metal models, wet and dry preparations, and instruments.

**3. Obstetric Clinics and Conferences.**—An obstetric clinic is held by Professor Edgar for the third year class at the Manhattan Maternity and Dispensary, 327 East 60th Street. At this clinic abnormal cases of pregnancy, labor, and the puerperium are demonstrated, and the major and minor obstetric operations performed.

In addition, infant feeding and the care of mother and child during the lying-in period and early infancy are taught. Members of the class will be called upon to examine patients and discuss etiology, diagnosis, prognosis, and treatment.

**4. Attendance upon Cases of Confinement.**—Each candidate for the degree of M.D. is required to present satisfactory evidence to the effect that he has attended a definite number of cases of confinement. To fulfil this requirement students may register as internes in the Manhattan Maternity and Dispensary, 327 East 60th Street. Students are lodged in the above hospital for periods of two weeks or more, and attend confinement cases both in the hospital building and in the tenement house districts of the upper east side of the city.

During the student's attendance upon his practical maternity course he may be excused from the exercises of the College during the fourth college year, otherwise he shall take his practical obstetric course during vacation time (see page 27). Further information concerning the practical obstetric work may be obtained by applying at the secretary's office.

**5. Manikin Practice and Section Work.**—Manikin practice is given to sections of the class during the third year, and consists of work by individual students upon the manikins, under the supervision and criticism of an instructor.

The mechanical phenomena of labor; modes of delivery; abnormal presentations and positions, with methods of delivery of each; version; application of the forceps, and other manipulations, will be demonstrated by the instructor and performed by the student.

The sections will also be instructed at the bedside at Bellevue Hospital in the management of pregnant and parturient women, the care of the newborn child, abdominal palpation, and pelvic mensuration.

**6. Obstetric Histology, Pathology, and Bacteriology.**—Laboratory instruction is given in the Departments of Anatomy and Pathology upon the histology of the vulva, uterus, ligaments, Fallopian tubes, and ovaries in the pregnant and non-pregnant conditions, and upon the histology and pathology of the decidua, chorion, placenta, and umbilical cord.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

## SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>
Lectures .....	.....	10 hours.
Recitations .....	.....	.....
Clinics .....	22 hours.	20 hours.
Sections .....	.....	48 hours.

*Text-book.*—Edgar, *Practice of Obstetrics.*

## DEPARTMENT OF PATHOLOGY.

**General Pathology, Pathological Anatomy, Experimental Pathology,  
Chemical Pathology.**

JAMES EWING, M.D., *Professor of Pathology.*  
 OTTO H. SCHULTZE, M.D., *Professor of Medical Jurisprudence.*  
 CHARLES NORRIS, M.D., *Assistant Professor of Pathological Anatomy.*  
 ELISE S. L'ESPÉRANCE, M.D., *Instructor in Pathology, and Librarian.*  
 JAMES B. GERE, M.D., *Instructor in Neuro-pathology.*  
 CHARLES S. B. CASSASSA, M.D., *Assistant in Pathological Anatomy.*  
 HENRY MULLER, M.D., *Assistant in Pathology.*

## GENERAL PATHOLOGY.

**Facilities.**—The department of pathology occupies the main part of the fourth floor of the college building, in which are a class room and working museum, demonstration room for pathological anatomy with refrigerating plant, a preparation room for pathological histology, one large room for special students, five private laboratory rooms for officers of the department, an animal hospital, and the library.

Pathological material is drawn from New York Hospital, Bellevue Hospital and the City Morgus Memorial Hospital for Cancer and Allied Diseases, Woman's Infirmary, Neurological Institute, Italian Hospital, and Manhattan Maternity Hospital.

The museum contains a selected collection of 3,000 specimens illustrating most of the common and many rare pathological lesions. It is especially rich in lesions of bones and in tumors.

The histological cabinets contain about 20,000 slides arranged anatomically and cross-indexed for special diseases. There are also 200 sets of demonstration slides for undergraduate teaching purposes.

The Library contains 7,000 bound volumes of current periodicals in English, French, German and Italian, and 4,000 selected reprints and monographs. There is also a students' library of recent text-books.

An annual volume is issued jointly by the Departments of Pathology, Bacteriology, and Hygiene, in which are collected the main studies coming from these laboratories. The Department of Pathology with the collaboration of heads of other departments conducts the work of the Huntington Fund for Cancer Research of the Memorial Hospital and at appropriate times issues reports of these studies.

## DETAILS OF THE PLAN OF INSTRUCTION.

**Instruction.**—The course of instruction in pathology begins in the second term (January) of the second year with lectures, gross and microscopical demonstrations, illustrating degeneration, inflammation, repair of tissue, and the infectious granulomas. At the same time the student observes the external phenomena of disease in demonstrations conducted by the Departments of Medicine and Surgery, reads about them in text-books, and prepares recitations on these topics. Coincidentally biweekly demonstrations of gross pathological material collected from autopsies are conducted. The introduction of each topic is made by individual demonstration of museum specimens followed by microscopical sections. Further co-ordination of work is accomplished by having the course in bacteriology proceed at the same time. The third term is occupied by the subject of tumors, and the Special Pathology of lungs, heart, liver, and kidneys. The first term of the third year is divided among the medical specialties, constitutional diseases, gynecological pathology, dermatopathology, and neuropathology.

Pathological Anatomy is continued through the three terms of the course in general pathology, and in the fourth year the student performs autopsies. Various elective courses are offered in the latter portion of the fourth year.

### SYNOPSIS OF COURSES.

**General Pathology.**—Lectures, gross and microscopical demonstrations in:

(a) Degeneration, Inflammation, Regeneration, Granulomas, 70 hours. Required in second term of second year. (b) Tumors and Special Pathology of Lungs, Heart, Liver and Kidneys, 88 hours. Required in third term of second year. (c) Special Pathology of Constitutional Diseases, etc. Gynecological Pathology, Dermatopathology, Neuropathology, 88 hours. Required in first term of third year. Prof. Ewing, Drs. L'Esperance and Muller.

**Pathological Anatomy.**—Demonstrations of gross lesions in material collected from autopsies, gross pathological diagnosis, pathogenesis of symptoms and lesions. 84 hours. Required in second and third year.

**Autopsy Technique.**—Section teaching at Morgue. Required in fourth year. Prof. Schultze and Dr. Cassassa, Prof. Norris and assistants.

**Medico-legal Pathology.**—The medico-legal relations of pathology are extensively illustrated in the material collected in the morgue and in the museum, and special attention is devoted to this subject in the third and fourth years. Prof. Schultze.

**Chemical Pathology.**—Lectures and laboratory exercises are conducted in the fourth year in elective courses given by Prof. Benedict in the Department of Chemistry, and by Dr. Coca, Instructor in Immunology.

**Recitations, Examinations.**—Written recitations are conducted monthly throughout the year. Written and practical examinations are held at the end of the second year and at the termination of the course.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

**Electives.**—In the latter part of the fourth year the student may return to the laboratory and pursue advanced courses in several fields to be determined on consultation. The following courses are specifically recommended.

1. Pathological technique.
2. Tumor diagnosis and General Oncology.
3. Gynecological Pathology.
4. Dermatopathology.
5. Neuropathology.
6. Surgical Pathology.
7. Special pathology and study of groups of cases with the production of a thesis.

Most of these elective courses will require the student's entire time for one to three months, but may be continued into the summer.

**Special Students and Special Degrees.**—Opportunity is afforded to a limited number of students to engage in original research in selected topics under the direction of an instructor. The student must contract to devote his entire time, in the usual sense, to the pursuit of the problem, and the results of the work may be published under the auspices of the department. The work may be pursued in the college laboratories, in the Loomis Laboratory, at the New York Hospital, or at the Memorial Hospital in cancer research.

Under the conditions laid down in the Graduate School of Medicine, the student may obtain the degree of Ph.D. in Pathology.

### CANCER RESEARCH.

Since 1904 the work of the Huntington Fund for Cancer Research has been located in the laboratories of Cornell University Medical College under the general direction of the Department of Pathology, and with the collaboration of heads of other departments. Later through the support of Dr. James Douglas, and the co-operation of the Board of Governors it has been extended to the laboratories of the Memorial Hospital. A laboratory building accommodating pathology, chemistry and physics has recently been erected.

The organization of this work includes pathology, Prof. Ewing; bacteriology, Prof. Torrey; immunology, Dr. Coca; experimental medicine, Prof. Weil; chemistry, Prof. Benedict; and biology, Prof. Stockard.

Clinical studies in the diagnosis, natural history, and treatment of neoplastic diseases are conducted in the hospital by the members of the Staff. The general conduct of the ward service is in charge of Dr. Wm. S. Stone, Assistant Director of Cancer Research. The Radium Department is in charge of Dr. H. H. Janeway, assisted in special fields by Drs. H. C. Bailey, B. S. Barringer, and Samuel Brown. The radium laboratory possesses three grams of radium metal, supplied by the National Radium Institute through Dr. James Douglas. The radium laboratory is in charge of Prof. Wm. Duane, Associate Consulting Physicist and Mr. Giacchino Failla, Physicist, and two assistants. The physics department also enjoys the services of Prof. J. S. Shearer, Consulting Physicist.

## DETAILS OF THE PLAN OF INSTRUCTION.

The X-ray Department is in charge of Prof. L. G. Cole, Consulting Roentgenologist and Dr. Douglas Quick, Roentgenologist.

### SUMMARY.

	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
General Pathology .....	70 hours	.....	.....
Special Pathology .....	88 hours	88 hours	.....
Pathological Anatomy .....	62 hours	22 hours	.....
Autopsy Technics .....	.....	.....	24 hours*

\*Required 1917-1918.

## BACTERIOLOGY.

WILLIAM J. ELSER, M.D., *Professor of Bacteriology.*

FRANK M. HUNTOON, M.D., *Assistant Professor of Bacteriology.*

ARTHUR F. COCA, M.D., *Instructor in Immunology.*

GEORGE W. WHEELER, M.D., *Assistant in Bacteriology.*

I. *Bacteriology.*—The subject is taken up in two parts. Part I includes the preparation of culture media, the principles of sterilization and disinfection; the methods of isolation and differentiation of bacterial species and a study of their bio-chemical behaviour. Part II includes a detailed study of the pathogenic bacteria; special attention being paid to their relation to diseases of man. This work is supplemented by lectures and conferences dealing with the theoretical phases of bacteriology and immunology.

II. *Immunology.*—This is a laboratory course in immunology and serum study and is designed primarily to familiarize the student with the fundamental immunological and serological principles. It includes also the technique involved in the recognized clinical and forensic applications of those principles, viz., Widal, precipitin, Wassermann and Schick test, reciprocal blood tests, preliminary to transfusion, dermal and ophthalmic tests in hay-fever and other forms of sensitization, etc.

This is an elective course restricted to specially qualified fourth year students.

### SUMMARY.

	<i>Second Year</i>	<i>Fourth Year</i>
Bacteriology .....	150 hours	.....
Immunology .....	.....	Elective

CORNELL UNIVERSITY MEDICAL COLLEGE.

SPECIAL DEPARTMENTS OF MEDICINE AND  
SURGERY.

NEUROLOGY.

CHARLES L. DANA, M.D., *Professor of Clinical Medicine, Department of Neurology.*

R. FOSTER KENNEDY, M.D., *Associate Professor of Clinical Medicine, Department of Neurology.*

HORACE W. FRINK, M.D., *Assistant Professor of Clinical Medicine, Department of Neurology.*

*Clinical Instructor.*  
C. P. OBERNDORF, M.D.

The regular work consists of a preliminary series of lectures by Professor Dana, in which the general outline of the work for the year is given, with demonstrations of the general anatomy, general symptomatology, and methods of examination of the nervous system. During the rest of the term clinical lectures on nervous diseases are held weekly in the amphitheatre of Bellevue Hospital or at the college. Section work is given weekly to classes in the dispensary of the college. In this dispensary, section work instruction is given in history-taking, in the examination of patients, and in electrotherapeutics.

It is considered of the greatest importance that the student of nervous diseases be thoroughly grounded in the anatomy and physiology of the nervous system, therefore courses in gross and microscopical anatomy of the nervous system are provided in the histological laboratory and, similarly, a course in neuro-pathology is given in the pathological laboratory.

Thus the course of instruction aims to provide the student before he graduates with instruction in the microscopical anatomy of the nervous system, in its physiology and pathology, and also with practical clinical instruction in the amphitheatre, at the bedside, and in the dispensary.

**Hospital Work.**—In the second term of the fourth year students are assigned to ward work in the wards of Bellevue Hospital and at the Neurological Institute, where under the direction of the Professor and Assistant Professor of Neurology each student is assigned cases for study, and is required to compile complete histories, make examinations, become thoroughly familiar with the case in every aspect, and discuss in conference the diseases thus studied. In addition to the opportunity for a complete study of neurological cases thus afforded, the work of the clinical clerk is extended by visits with the Professor or Instructor in charge to the psychopathic and alcoholic wards of the hospital, where the neurological phases of these cases are discussed in conference. The conduct of the ward work is under the direction of the Professor of Neurology, who is a Consulting Physician to Bellevue Hospital, and who is assisted by the Associate Professor, the Assistant and Adjunct Assistant Visiting Neurologists of the Second (Cornell) Medical Division, and by the special laboratory workers and nurses assigned to the wards, so that opportunity is offered for the complete study of every phase of nervous disease as exhibited in the wards of a large hos-

## SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

pital. In this way the student may obtain an intimate knowledge of the important forms of nervous disease.

	SUMMARY.		
	<i>Second Year.</i>	<i>Third Year.</i>	<i>Fourth Year.</i>
Lectures .....	5 hours	.....	.....
Clinics .....	6 hours	32 hours	.....
Sections .....	.....	3 hours	.....
"Clinical Clerkships" ..	.....	.....	36 hours

*Text-book.*—Dana, *Diseases of the Nervous System*.

*Collateral Reading.*—Works on nervous diseases by Sachs, Starr, Church and Peterson, Oppenheim, Bing, and Stewart.

## PSYCHIATRY.

\_\_\_\_\_, *Professor of Clinical Medicine, Department of Psychiatry.*  
 JOHN T. MACCURDY, M.D., *Lecturer on Clinical Medicine, Department of Psychiatry.*

*Clinical Instructors.*

W. W. WRIGHT, M.D.,

C. O. CHENEY, M.D.

The instruction consists in the following:

1. In the third year, ten lectures on medical psychology, which are to serve as a preparation for the study of psychiatry by giving the principles of abnormal mental action as it occurs in the psychoses and neuroses.
2. In the fourth year, the course covers the principal data and methods of modern psycho-pathology, and the diagnosis and treatment of mental disorders, with constant reference to the earliest manifestations. It consists of clinical demonstrations and practical exercises, as well as didactic lectures.

Students are enabled to spend an entire morning in the wards of Manhattan State Hospital on Ward's Island, which is readily reached by ferry from the foot of East 116th Street. By thus devoting a continuous period of three hours weekly for nine weeks to work with cases, and one hour weekly to systematic didactic lectures, opportunity is afforded for training in methods of examination and observation, and for instruction in the principles of disorders.

The entire instruction in the third and fourth years is designed to give the student not only a knowledge of the marked mental disorders but also of the milder abnormalities and to develop an appreciation of the importance of mental factors in all diseases.

### SUMMARY.

*Third Year.*

Lectures on medical Psychology .....	11 hours
Clinical demonstrations and practical exercises.....	33 hours
Lecture on Psychiatry .....	11 hours

Reference books.—Kraepelin, *Text-book on Clinical Psychiatry*, translated and abridged by Diefendorf; White, *Outlines of Psychiatry*; Hart, *Psychology of Insanity*.



## CORNELL UNIVERSITY MEDICAL COLLEGE.

### PEDIATRICS.

JOSEPH E. WINTERS, M.D., *Professor of Clinical Medicine, Department of Pediatrics.*

*Clinical Instructors.*

WILLIAM SHANNON, M.D.,

JOSEPH C. ROPER, M.D.

WILLIAM D. TYRRELL, M.D.

This department will embrace clinical instruction and section teaching in all the important diseases of infancy and childhood.

There will be one clinical lecture each week in the college building, and clinical lectures in the Willard Parker Hospital on scarlet fever and diphtheria.

In connection with the dispensary of the Children's Department in the college building there is an amphitheatre for section teaching, and isolation rooms for contagious diseases, so that students have ample opportunity for the personal study of disease.

Three hours each week for ten consecutive exercises will be devoted to section teaching in the dispensary to the students of the third year.

Students will be required to examine sick children and discuss the diagnosis and treatment of patients assigned to them.

Special attention is given to the hygiene and feeding of infants; the digestive disorders of infants; the dietetics of childhood and the food disorders of infancy and childhood; the anatomical and physiological peculiarities of infancy and childhood; and the influence these peculiarities have on the manifestations of disease in children.

One of the distinguishing features of this department will be the instruction of each student in the art of diagnosis by the professor in charge.

There will be practical bedside illustrations of the management, care, and therapeutics of all the acute diseases of infancy and childhood.

In the Department of Clinical Pathology every examination pertaining to this subject will be elaborately taught. Clinical diagnosis takes precedence; laboratory tests and clinical pathology are fully utilized for confirmation. Microscopical examinations will be made of secretions and excretions, of lesions of the mouth and throat, and of sections of anatomical lesions of the important diseases of childhood. Radiographs are used extensively as an aid to diagnosis.

**Hospital Work.**—Students are assigned for a continuous service as clinical clerks, 2-5 P.M., on alternate days, for a period of three weeks, in the wards of the New York Hospital. Each student will be assigned a certain number of cases, and will be required to take the history, make physical and pathological examinations, and observe and co-operate in the treatment of the patient. Such patients are followed from their admission to the hospital to their discharge, or to the completion of the clerkship.

Conferences with the instructor are held each afternoon, at which the student must demonstrate the cases of which he is required to make a complete study, and to discuss all phases of the disease. This work has been



## SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

arranged by the Professor of Pediatrics, and is done under the immediate direction of a clinical instructor.

### SUMMARY.

	<i>Third Year.</i>	<i>Fourth Year.</i>
Clinics .....	32 hours.	11 hours.
Sections .....	18 hours.	.....
Clinical Clerkships .....	.....	36 hours.

*Text-book.*—Still, *Common Disorders and Diseases of Childhood*; Holt, *Diseases of Infancy and Childhood*, fifth edition, 1909; Rotch, *Pediatrics*.

*Collateral Reading.*—Starr, *American Text-book on the Diseases of Children*; Ker, *Infectious Diseases*.

### GYNÆCOLOGY.

WILLIAM M. POLK, M.D., *Professor of Clinical Surgery, Department of Gynecology.*

GEORGE GRAY WARD, JR., M.D., *Associate Professor of Clinical Surgery, Department of Gynecology.*

EDWIN W. HOLLADAY, M.D., *Instructor in Clinical Surgery, Department of Gynecology.*

LILIAN K. P. FARRAR, M.D., *Instructor in Clinical Surgery, Department of Gynecology.*

DAVID NYE BARROWS, M.D., *Instructor in Clinical Surgery, Department of Gynecology.*

Instruction in Gynecology is given during the second, third and fourth years by (1) Recitations and lectures, (2) Section teaching in the Out-Patient Department, (3) General operative clinics, (4) Section work in operative clinics, (5) Ward demonstrations and conferences, and (6) Laboratory courses, (7) Elective section work at operative clinics.

1. During the second year recitations and lectures are given in the third term. A standard text-book is used and the student is systematically taught the general principles of the subject so as to give him a foundation upon which to build his clinical knowledge. Charts, models, pathological specimens, instruments, lantern slides, etc., are used to illustrate the lectures.

2. Small sections of three or four students are drilled in methods of examination and treatment of cases in the Out-Patient Departments of the College and Bellevue Hospital during the second and third years. In connection with the Out-Patient teaching instruction is given in gynecological cystoscopy; the technic of endoscopy, cystoscopy, catheterizations of ureters and testing of kidney efficiency as applied to gynecological cases.

3. A general operative clinic is held at Bellevue Hospital for the fourth year students throughout the first and second terms. Charts, black-board drawings, clay modeling, etc., are employed before the operation is begun, to teach the principles of operative gynæcology. A stereomatograph has been

## CORNELL UNIVERSITY MEDICAL COLLEGE.

placed in the operating room and during the operation lantern slides are thrown upon the screen to show the operative steps and to refresh the student's memory of the anatomy of the region.

4. Elective section work in operative clinics is given at Bellevue Hospital in the third term during the fourth year.

Small sections permit the students acting as assistants at the operation to examine the patient under anæsthesia and thus enables them to study the detail of the operation, to write up reports, and to check up the diagnosis.

5. Ward demonstrations and conferences are held during the first and second terms of the fourth year at Bellevue Hospital. The students are brought into contact with the patients they have seen operated on and are thus enabled to follow the post-operative course of each case. They take histories of patients awaiting operation and make pelvic examinations under guidance.

Methods of diagnosis are demonstrated and the appropriate treatment is outlined. Non-operative treatments are demonstrated during these conferences.

6. A course in pathological gynecology is given during the third year. Specimens from the museum and microscopical sections of diseased tissues are demonstrated.

Laboratory demonstrations of secretions, discharges and specimens obtained from patients who come under operation are made to sections of the third year class as a part of the course in Clinical Pathology.

Sections of the fourth year class during the first and second terms are given demonstrations of gross pathology from fresh specimens they have seen removed at operation and they study these diseased tissues under the microscope.

### SUMMARY.

	<i>Second Year</i>	<i>Third Year</i>	<i>Fourth Year</i>
Lectures and Recitations.....	22 hours	.....	.....
Laboratory .....	.....	*16 hours	.....
Sections .....	.....	10 hours	.....
Clinics .....	.....	.....	(Elective)
Ward Demonstrations and Conferences .....	.....	.....	36 hours

\*Given in the Departments of Pathology and Clinical Pathology, see pages 43 and 53.

*Text-books.*—Ashton, *Gynecology*; Polak, *Gynecology*; Penrose, *Diseases of Women*.

### UROLOGY.

EDWARD L. KEYES, JR., M.D., *Professor of Clinical Surgery, Department of Urology.*

BENJAMIN S. BARRINGER, M.D., *Instructor in Clinical Surgery, Department of Urology.*

HOWARD S. JECK, M.D., *Clinical Instructor in Clinical Surgery, Department of Urology.*

ABRAHAM STRACHSTEIN, M.D., *Clinical Instructor in Surgery, Department of Urology.*

## SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

The courses in this department are required of students during the third and fourth year. They are designed to give instruction in diagnosis and treatment of the surgical diseases of the urinary and male genital organs.

**Clinic.**—Third Year. A two-hour clinic will be given in Bellevue Hospital during the second term by Professor Keyes. At this clinic typical cases are demonstrated and discussed by the students themselves. Cases are followed during their stay in the Hospital and by means of a return clinic throughout their convalescence.

**Lectures.**—Third year. A course of ten lectures will be given to the third-year class during the first term of the college session.

**Section Teaching.**—Third year. The third-year class will be divided into sections of small size for instruction in the College Dispensary during the first and second terms.

**Hospital Work.**—Students are assigned to clerkships in the wards of Bellevue Hospital and study the cases in the wards devoted to Urology continuously for one week. They are expected to follow these cases to a conclusion just as is done in the wards devoted to general surgery. Thus, during a service as surgical clerks, opportunity is afforded for the complete study of a considerable number of cases in the urological wards.

### SUMMARY.

	<i>Third Year</i>	<i>Fourth Year</i>
Clinics .....	20 hours	.....
Sections .....	12 hours	.....
Lectures .....	11 hours	.....
Clinical Clerkships .....	.....	42 hours*

\*Not required 1917-18.

*Text-books.*—Keyes.

*Collateral Reading.*—Thompson, Walker, Chetwood.

## DERMATOLOGY.

GEORGE T. ELLIOT, M.D., *Professor of Clinical Medicine, Department of Dermatology.*

JAMES C. JOHNSTON, M.D., *Assistant Professor of Clinical Medicine, Department of Dermatology.*

HANS J. SCHWARTZ, M.D., *Instructor in Clinical Medicine, Department of Dermatology.*

Instruction in Dermatology and Syphilology will be given by the Clinical Professor and his assistants. No teaching will be given didactically, but the cutaneous diseases will be demonstrated on the living subject. Abundance of material for such instruction is obtainable, and the student can thoroughly familiarize himself with the more common as well as with the rarer diseases of the skin by actual personal contact and observation. Attention is particularly paid to the diagnosis and the etiology of skin diseases, but their therapeutics also receive due consideration. Instruction will also be given

## CORNELL UNIVERSITY MEDICAL COLLEGE.

in the intravenous and other forms of treatment by salvarsan and neosalvarsan.

### SUMMARY.

	<i>Third Year</i>	<i>Fourth Year</i>
Sections .....	6 hours	.....
Clinic .....	10 hours	11 hours*

\*Not required after January, 1918.

*Text-books.*—Stelwagon, *Diseases of the Skin*; Crocker, *Dermatology*.

## LARYNGOLOGY AND RHINOLOGY.

HARMON SMITH, M.D., *Professor of Clinical Surgery, Department of Laryngology and Rhinology.*

The professor of the department gives instruction to the fourth year students by didactic lectures and clinical exercises. In this work he is assisted by the clinical instructor and his other assistants. The lectures are illustrated by plates, models and stereopticon projections and later demonstrated in the clinic.

Each student is individually instructed in the ordinary methods of examination of the nose and throat and shown the recent measures employed in laryngoscopy and bronchoscopy.

### SUMMARY.

	<i>Third Year</i>	<i>Fourth Year</i>
Sections .....	12 hours	.....
Clinic .....	.....	11 hours*

\*Not required after January, 1918.

*Text-books.*—Wright and Smith, *Diseases of the Nose and Throat*.

*Collateral Reading.*—St. Clair Thomson, *Diseases of the Nose and Throat*; Knight, *Diseases of the Nose and Throat*.

## OPHTHALMOLOGY.

ROBERT G. REESE, M.D., *Professor of Clinical Surgery, Department of Ophthalmology.*

*Clinical Instructors.*

GEORGE W. VANDEGRIFT, M.D.

BERNARD SAMUELS, M.D.

Instruction in Ophthalmology consists of section teaching in the third term of the fourth year, two hours a week for eleven weeks, at the College Dispensary. The sections are of the nature of clinical conferences, and consider the subjects of the external or superficial diseases of the eye, the anomalies of the ocular muscles, and the deep lesions of the eye which are not susceptible of clinical demonstration. The sectional teaching at the college dispensary is devoted partly to clinical ophthalmology and the use of the ophthalmoscope, and partly to instruction in the errors of refraction and the rudiments of the fitting of lenses. Thus the entire field of ophthalmology is covered.

## SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

### SUMMARY.

	<i>Third Year</i>	<i>Fourth Year</i>
Sections .....	24 hours	.....
Clinic .....	11 hours	22 hours*

\*Not required after January, 1918.

*Text-books.*—Weeks.

*Collateral Reading.*—De Schweinitz, May.

### OTOLOGY.

FREDERICK WHITING, M.D., *Professor of Clinical Surgery, Department of Otolology.*

*Clinical Instructor.*

GEORGE B. McAULIFFE, M.D.

For clinical instruction in Otolology, the third-year class is divided into sections. Each student receives practical instruction in the College Dispensary from Professor Whiting and his assistants in the examination of patients, the use of the otoscope, and the various methods of testing the hearing. The student is permitted to examine patients and after a probationary period, to prescribe for them and thus gradually assume the duties of a clinical assistant. The students also have an opportunity of witnessing the more important operations in aural surgery, including intracranial complications, at the New York Eye and Ear Infirmary.

### SUMMARY.

	<i>Third Year</i>	<i>Fourth Year</i>
Sections .....	12 hours	.....
Clinic .....	.....	10 hours*

\*Not required after January, 1918.

*Text-books.*—Bacon, *On the Ear.*

*Collateral Reading.*—Politzer, *Diseases of the Ear*; Macewen, *Pyogenic Infective Diseases of the Brain and Spinal Cord*; Whiting, *The Modern Mastoid Operation.*

### ORTHOPÆDIC SURGERY.

CHARLTON WALLACE, M.D., *Professor of Clinical Surgery, Department of Orthopædic Surgery.*

*Clinical Instructors.*

ARTHUR H. CILLEY, M.D.,

RICHMOND STEPHENS, M.D.

The instruction in this Department is in the fundamental principles of Orthopedic Surgery and their application in the treatment of individual patients.

This is carried on in the third and fourth years:

I.—During the first term of the third year:

(a) Didactic and clinical lectures are given for one hour a week to the entire class in the college lecture room.

(b) The students are trained in the use of plaster of Paris and braces in the actual treatment of the patients in the College Dispensary.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

II.—In the fourth year each section of the class receives bedside instruction in the wards of the Hospital for the Ruptured and Crippled for three mornings a week for six weeks. Here there is an unsurpassed variety of congenital and acquired deformities. The students are taught the methods of examination and then are required to examine the patient and give a concise résumé of the history of the case, physical examination and the treatment to be employed. Following this is an informal quiz on the topic of the day.

### SUMMARY.

	<i>Third Year</i>	<i>Fourth Year</i>
Lectures .....	11 hours	.....
Recitation .....	4 hours	.....
Sections .....	6 hours	.....
Ward Work .....	.....	36 hours

*Text-books.*—Whitman.

### ROENTGENOLOGY.

LEWIS GREGORY COLE, M.D., *Professor of Roentgenology.*

JOSEPH M. STEINER, B.S., M.D., *Instructor in Roentgenology.*

W. WALLACE MAVER, M.D., *Assistant in Roentgenology.*

The course in this department consists of the demonstration of the apparatus and the method of making Roentgen examination of various portions of the body. The time is largely spent in considering the scope and accuracy of this method of diagnosis in all branches of medicine. This will include the study and interpretation of Roentgenograms showing foreign bodies, fractures, dislocations, and bone and joint lesions, renal, ureteral, and vesical calculi and other lesions which can be detected Roentgenographically, including pyelography. Lesions of the skull, the study of the teeth, infections of the accessory sinuses, together with the Roentgeno-diagnosis of joint lesions produced by these infections will be considered. Respiratory lesions—abscesses, tumors of the lungs, mediastinal tumors—are carefully considered, special attention being devoted to the early diagnosis of pulmonary tuberculosis.

Lesions of the gastro-intestinal tract such as strictures and diverticula of the œsophagus, and growths, kinks and adhesions of the colon will be discussed. Particular emphasis will be given to the motor phenomena of the stomach, and the physiology of the pylorus as observed by this method of examination; to the diagnosis of gastro-duodenal lesions such as carcinoma, ulcers of the stomach and duodenum; and to gall-bladder infection, with or without calculi.

As far as possible this work will be carried on in conjunction with the other clinical departments, all students having the opportunity of studying individual cases clinically before the Roentgenographic study, then comparing the clinical findings, the Roentgen findings, and if possible the surgical findings in such cases as require surgical procedure.

## SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

After having had demonstrated to them a series of plates on allied subjects the students are in turn required to re-interpret these Roentgenograms to the class. This method has proved exceedingly valuable and will be followed to a great extent.

Finally, the course will conclude with lectures on Roentgeno-therapy covering the treatment of both superficial and deep-seated lesions, describing the cross-fire method, the advantage of high penetration with the Coolidge tube, and methods of dosage in the application of rays with or without filters. These lectures will be accompanied by a demonstration of cases which have been so treated.

### SUMMARY.

	<i>Third Year</i>	<i>Fourth Year</i>
Lectures .....	22 hours	11 hours*

\*Not required in fourth year after January, 1918.

## HYGIENE.

JOHN C. TORREY, Ph.D., *Professor of Hygiene.*

ALFRED H. RAHE, *Assistant.*

Instruction in some of the many branches of hygiene and preventive medicine is given in connection with certain of the courses pursued in the several departments of Bacteriology, Chemistry, Physiology, Pathology and Medicine.

The more distinctive features of this subject, however, are presented in a course of lectures and demonstrations during the third term of the second year. A certain amount of laboratory work is also required of each student. In addition time has been allotted for field work through which the student may acquire experience in making sanitary surveys and visit localities in the vicinity where the practical application of sanitary devices and hygienic methods may be observed.

### SUMMARY.

	<i>Second Year</i>	<i>Fourth Year</i>
Lectures and Conferences.....	.....	11 hours*
Laboratory Work .....	40 hours	.....
Field Work .....	20 hours†	.....

\*Not required in fourth year after January, 1918.

†10 afternoons are also assigned for field excursions.

*Text-book.*—Rosenau, *Preventive Medicine and Hygiene.*

*Collateral Reading.*—Harrington-Richardson, *Practical Hygiene*; Bergey, *Principles of Hygiene*; Egbert, *Hygiene and Sanitation*; Chapin, *Sources and Modes of Infection.*

## MEDICAL JURISPRUDENCE.

OTTO H. SCHULTZE, M.D., *Professor of Medical Jurisprudence.*

A course of lectures from the standpoint of the medico-legal autopsy, with demonstration of material, will be given by Professor Schultze. This course will cover autopsy technique in medico-legal cases, the autopsy pro-

## CORNELL UNIVERSITY MEDICAL COLLEGE.

tocol, and laboratory methods for establishing the proof of the cause of death in cases of accident, suicide, and homicide; also, the forensic aspect of the subject in cases of indemnity, liability and criminal prosecution.

The clinical aspects of the subject are covered in the regular course of study by several departments and by special lectures. The responsibilities of the physician towards the insane and their relatives and the general public, and the criminal aspects of the mentally defective, are discussed by Professor Hoch. In the course on Obstetrics Professor Edgar takes up the moral and legal side of rape, feigned and unconscious pregnancy, what constitutes a "live birth," feigned or unconscious delivery, injury to the fœtus during precipitate labor, post-mortem delivery and the diagnosis of recent delivery. The medico-legal aspects of Toxicology are fully covered during the course in Pharmacology by Professor Hatcher.

### SUMMARY.

*Third Year*

Lectures .....21 hours  
(See also Departments of Pharmacology, Obstetrics and Psychiatry.)



# SCHEDULE OF COURSES\*

## FIRST YEAR—SESSION OF 1917-1918—FIRST TERM

October 1st to December 22nd.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9	A N A T O M Y						
10							
11							
1	Histology and Embryology	Chem. L.	Histology and Embryology	Chem. L.	Histology and Embryology		
2		Morphology					
3							
4	Advanced Chemistry†						
5							Laboratory

†The type of instruction varies with the individual student, depending on the amount and character of advanced chemistry offered for admission.

Additional ELECTIVE courses may be offered in Department of Anatomy Thurs. and Sat. P. M.

## FIRST YEAR—SESSION OF 1917-1918—SECOND TERM

January 7th to March 16th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	Histology and Embryology			Chem. Rec.	Histology and Embryology.	Histological Technique and Diagnosis
10				Anatomy		
11						
1	Anatomy	Chem. L.	Anatomy	Chem. L.	Anatomy	
2						
3		Chem. Lab.		Chem. Lab.		
4						
4:30						

Additional ELECTIVE courses may be offered in Department of Anatomy or Chemistry, 4-6 P. M. and Saturday 1-6 P. M.

## FIRST YEAR—SESSION 1917-1918—THIRD TERM

March 18th to June 1st.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	Chem. L.	Physiol. L.	Chem. L.	Physiol. L.	Chem. L.	Physiol. L.
10						
11	Chem. Lab.	Physiol. Lab.	Chem. Lab.	Physiol. Lab.	Chem. Lab.	Physiol. Lab.
12						
2	Neuro- Histology	Physiol. Rec.	Neuro- Histology	Neuro- Histology	Neuro- Histology	
3						
4	Chem. Rec.		Chem. Rec.	Physiol. Rec.	Physiol. L.	

\*Abbreviations.—L., lectures; Lab., laboratory; Rec., recitations; Sec., section (the class being assigned to two or more divisions for certain exercises); B. H., Bellevue Hospital (Second Division); B. H. 4., Bellevue Hospital (Fourth Division); C. D. College Dispensary; H. S., Hudson Street; Man. Mat., Manhattan Maternity Hospital; N. I., Neurological Institute; N. Y., New York Hospital; O. P. D., Bellevue Hospital, Out Patient Department; R. & C., Hospital for the Ruptured and Crippled; W. I., Ward's Island, Manhattan State Hospital.

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see above.

## SECOND YEAR—SESSION OF 1917-1918—FIRST TERM

October 1st to December 22nd.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9	PHYSIOLOGY LECTURE						
10	Physiol.* Lab.	Anatomy	Physiol.* Lab.	Anatomy	Physiol.* Lab.	Anatomy	
11							
12							
2	Physiol. R.	Physiol. Elective	Pharm- acology	Physiol. R.	Physiol. Seminary		
3	Elective†‡	Pharm- acology		Physiol. R.	Pharm- acology	Elective†	Pharm- acology
4							
<p>*Ithaca students elect either Anatomy or Physiology until course in Nutrition begins. †The Student will elect Anatomy, Physiology or Chemistry. ‡Lectures on Physiology of Reproduction, 3 to 4 P.M.</p>							

NOTE.—Vertical divisions in daily columns indicate that such courses run a half term only. Courses change Nov. 12th, 9 A.M.

## SECOND YEAR—SESSION OF 1917-1918—SECOND TERM

January 7th to March 16th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9	Med. R. Sec. A Surg.R.Sec.B.*	Med. R. Sec. B Surg.R.Sec.A.*	Pathology	Surg. L.	Pathology	Surg. Clinic	
10							
11			Pathology	Pharmacology	Pharmacology	Patholog. Anatomy	Med. Clinic C. D.
12							
2	BACTERIOLOGY					Pharmacology L.	
3							
4							

\*Subjects and sections change Feb. 11th, 9 A.M.

## SECOND YEAR—SESSION OF 1917-1918—THIRD TERM

March 18th to June 1st.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday			
9	Pharmacol. L.	Sections Schedule No. 1, page 69	Surg. L.	Sections Schedule No. 1, page 69	Pathology	Sections Schedule No. 1, page 69			
10									
11	Pathology	Hygiene	Pathology	Hygiene	Patholog. Anatomy	Hygiene Field Work			
12									
1									
2	Med. Clinic, N. Y.	Gynæcology L.	Surg. Clinic College	Gynæcology L.	Pharmacol. L.	Hygiene Field Excursion			
3			Med. R.						
4			Obstetrics Clinic and Conference				Appl. Pharm. I	Phys. Diag. L. Dr. Pardee	Neurology Clinic
5									

NOTE.—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 63.

# THIRD YEAR—SESSION OF 1917-1918—FIRST TERM

October 1st to December 22d

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	Pathology			Patholog. Anatomy	Pathology	Med. L. Prof. Conner
10						Urology L. Prof. Keyes
11	Medicine Clinic C. D. Prof. Conner	Clinical Pathology				
12						
2	Sections (See Schedule 2, page 69)		Surg. Clinic Prof. Stimson	Pediatrics Clinic College Prof. Winters	Sections (See Schedule 2, page 69)	Sections (See Schedule 3, page 70)
3	Sections (See Schedule 3, page 70)	Neurology Clinic Prof. Dana	Surg. Clinic B. H.	Sections (See Schedule 2, page 69)	Orthoped. L. Prof. Wallace	
4		Sections (See Schedule 3, page 70)			Sections (See Schedule 3, page 70)	
5	Therap. L. Prof. Meara	Applied Pharm. L.				

NOTE—For third year sections see pages 69, 70 and 71.

# THIRD YEAR—SESSION OF 1917-1918—SECOND TERM

January 7th to March 16th.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	Sections	Urology Clinic B. H. Prof. Keyes	Sections	Surg. Clinic N. Y. Prof. Gibson	Sections	Med. L. Prof. Conner
10						Med. Psychology L.
11						S E C T I O N S (See Schedule 4, page 71)
12						
2	Sections (See Schedule 2 page 69)		Surg. Clinic College Prof. Gibson	Pediatrics Clinic College Prof. Winters	Sections (See Schedule 2, page 69)	Dermatology Clinic Prof. Elliot
3	Pathology*	Neurology Clinic Prof. Dana	Pathology*	Surg. Clinic B. H. Prof. Hartwell	Pathology*	
4		Obstetrics Clinic Prof. Edgar		Obstetrics Prof. Edgar		
5	Therap. L. Prof. Meara			Med. Jurisprud. L. Prof. Schultze	Applied Pharm. L.	

\*1917-18 only, thereafter Applied Anatomy will be offered in these hours.

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 63.

# THIRD YEAR—SESSION OF 1917-1918—THIRD TERM

March 18th to June 1st.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	Sections	Surg. L. Prof. Stimson	Sections	Surg. L. Prof. Stimson	Sections	Med. Clinic B. H. Prof. Swift
10		Psychiatry L.		Med. Clinic Prof. Conner C.D.		
11		S E C T I O N S (See Schedule 4, page 71)				
12						
2	Roentgenology L. Prof. Cole	Ophthal. Clinic or L. Prof. Reese	Psychiatry W. I.	Pediatrics Clinic Prof. Winters	Roentgenology L. Prof. Cole	Surg. Clinic† Prof. Gibson
3	Operative Surgery*	Neurology Clinic Prof. Dana		Operative Surgery*		
4						
5	Therap. L. Prof. Meara			Med. Jurisprud. Prof. Schultze		

\*Not offered 1917-1918.

†Elective for fourth year students.

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 63.

# FOURTH YEAR—SESSION OF 1917-1918—FIRST TERM

October 1st to December 22d.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9				Surg. L. Prof. Stimson		
10	Sections (See Schedule 5, page 72)	Chemical Pathology Lab. Prof. Benedict	Sections (See Schedule 5, page 72)	Psychiatry L.	Sections (See Schedule 5, page 72)	Psychiatry Clinic W. I.
11				Hygiene L. Prof. Torrey		
1	Orthoped. L. Prof. Wallace	Orthoped. Clinic Prof. Wallace	Laryngol. Clinic Prof. Smith	Röntgenology L. Prof. Cole	Otology Clinic Prof. Whiting	
2	Surgery L. Prof. Stimson	Ophthalmology Clinic Prof. Reese	Dermatology Clinic Prof. Elliot	Pediatrics Clinic Prof. Winters	Ophthalmology Clinic Prof. Reese	Dermatology Clinic Prof. Elliot
3	S E C T I O N S (See Schedule 5, page 72)					
4						
5	Therapeutics L. Prof. Meara		Therapeutics Rec.		Therapeutics L. Prof. Meara	

# FOURTH YEAR—SESSION OF 1917-1918—SECOND TERM

January 7th to March 2d.

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	W A R D W O R K (Clinical Clerks) Sections (see P.M.) (Names assigned to sections as for the same class in their third year)					
10						
11						
12						
1	W A R D W O R K (Clinical Clerks) Jan. 7th to Feb. 2nd      SECTIONS      Feb. 4th to March 2nd A1, Med. N. Y.      B1, Med. N. Y. A2, Med. B. H.      B2, Med. B. H. B1, Surg. N. Y.      A1, Surg. N. Y. B2, Surg. B. H.      A2, Surg. B. H.					
2						
3						
4						
5						

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 63.

FOURTH YEAR—SESSION OF 1917-1918—THIRD TERM

March 4th to June 1st

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	ALL COURSES ARE ELECTIVE					
10						
11						
12						
2	<p>Students will register their courses at the College office on or before Feb. 1st</p> <p>(No course can be dropped without written permission from heads of all departments concerned, and the Dean)</p>					
3						
4						
4.30						
5						

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 63.

# DETAIL SCHEDULE

## OF SECOND, THIRD AND FOURTH YEAR

### SECTION CLASSES\*

*NOTE—Section periods in each instance include both dates. Sections are designated by letters. A figure following the letter indicates a half section.*

**SECOND YEAR SECTIONS—Schedule No. 1**

Subjects	Mar. 18th— Apr. 6th	Apr. 9th— 25th	Apr. 27th— May 14th	May 16th— June 1
Surgery, N.Y. Tu., Th., S. 9—10.30 A.M.	A <sub>1</sub>	A <sub>2</sub>	B <sub>1</sub>	B <sub>2</sub>
Surgery, H.S. Tu., Th., S., 9—10.30 A.M.	A <sub>2</sub>	B <sub>1</sub>	B <sub>2</sub>	A <sub>1</sub>
Medicine, B.H., 4th Div. Tu., Th., S., 9—11 A.M.	B <sub>1</sub>	B <sub>2</sub>	A <sub>1</sub>	A <sub>2</sub>
Physical Diagnosis, C.D. Tu., Th., S., 9—11 A.M.	B <sub>2</sub>	A <sub>1</sub>	A <sub>2</sub>	B <sub>1</sub>

**THIRD YEAR SECTIONS—Schedule No. 2**

Subjects	Oct. 1st— 27th	Oct. 29th— Nov. 24th	Nov. 26th— Dec. 22nd	Jan. 7th— 30th	Jan. 31st— Feb. 20th	Feb. 21st— Mar. 16th
Ophthalmology M., Tu., F. 2—3 P.M. C.D.	A			D	C	B
Otology M., Tu., F. 2—3 P.M. C.D.	B	A			D	C
Laryngology M., Tu., F. 2—3 P.M. C.D.	C	B	A			D
Pediatrics M., Tu., F. 2—3 P.M. C.D.	D	C	B	A		
Neurology M. 2—3 P.M. C.D.		D	C	B	A	
Urology M., Tu., F. 2—3 P.M. C.D.			D	C	B	A

*NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 63.*

### THIRD YEAR SECTIONS—Schedule No. 3

Subjects	Oct 1st— 13th	Oct. 15th— 27th	Oct. 29th— Nov. 10th	Nov. 12th— 24th	Nov. 26th— Dec. 8th	Dec. 10th— 22nd
Dermatology, C.D. M., Th., 3—4 P.M. S., 2—3 P.M.	A			D	C	B
Orthopedics, C.D. M., Th., 3—4 P.M., (Sec.) S., 2—3 P.M., (Sec.) M., Th., 4—5 P.M. (Rec.)	B	A			D	C
Applied Pharm. B. H. M., Th., 3—5 P.M. S., 2—4 P.M.	C	B	A			D
Obstetrics, B.H.* M., Th., 3—5 P.M. S., 2—4 P.M.		C D	C D	A B	A B	
Obstetrics, B.H.* Tu., W., F., 4—6 P.M.		C D	C D	A B	A B	
Gynecology M., Tu., C.D., 2—3 P.M. Th., B.H., O.P.D., 3—4 P.M.	D <sub>1</sub>		B <sub>1</sub>	C <sub>1</sub>		A <sub>1</sub>
Gynecology M., O.P.D., 3—4 P.M. F., S., C.D., 2—3 P.M.	D <sub>2</sub>		B <sub>2</sub>	C <sub>2</sub>		A <sub>2</sub>
Ophthalmology, C.D. T., W., F., 4—5 P.M.	A B	A B			C D	C D

\*On notice by the Department the section may be held elsewhere. Students will watch the bulletin board.

*NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 63.*



THIRD YEAR SECTIONS—Schedule No. 4

Subjects	Jan. 7th— 17th	Jan. 18th— 29th	Jan. 30th— Feb. 9th	Feb. 11th— 21st	Feb. 23rd— Mar. 5th	Mar. 6th— 16th	Mar. 18th— 28th	Apr. 1st— 11th	Apr. 12th— 23rd	Apr. 24th— May 4th	May 6th— 16th	May 17th— 29th
Medicine Rec. Tu., Th., S. 10—11 A.M.	A B E*	A B E	A B E	A B E	A B E	A B E	C D F*	C D F	C D F	C D F	C D F	C D F
Surgery Rec. Tu., Th., S. 12 M.—1 P.M.	A B E*	A B E	A B E	A B E	A B E	A B E	C D F*	C D F	C D F	C D F	C D F	C D F
Surgery H.S. (or N. Y.) M., W., F. 9 A.M.—1 P.M.	A	A	B	B	E*	E	C	C	F*	F	D	D
Pediatrics Willard-Parker M., F. 9—11 A.M.	C	E*	F*	A	B	D						
Surgery N. Y. Tu., Th., S. 10.30 A.M.—1 P.M.	D	D	C	C	F*	F	A	A	B	B	E	E
Medicine C. D. M., W., F. 11 A.M.—1 P.M.	B	B	E*	E	A	A	D	D	C	C	F*	F
Gynecology B. H. W., 9—11 A.M.							E*	D	C	A	B	F*
Therapeutics Rec. M., W., F. 9—10 A.M.							A B F*	A B F	A B F	C D E*	C D E	C D E

\*For the session of 1917-1918 Sections E and F will be omitted.

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 63.

**FOURTH YEAR SECTIONS—Schedule No. 5.**

<b>Subjects</b>	<b>Oct. 1st— 27th</b>	<b>Oct. 29th— Nov. 24th</b>	<b>Nov. 26th— Dec. 22nd</b>
Surgery Mt. Sinai M., W., F. 9—12 A.M.	D	C	E
Orthopedics R. & C. M., W., F. 9—12 A.M.	E	D	C
Pathological Anatomy Mortuary B. H. M., W., F. 10—12 A.M.	C	E	D
Neurology B. H. M., W., F. 3—5 P.M.	D	C	E
Gynecology B. H. M., W., F. 3—5 P.M.	E	D	C
Pediatrics N. Y. Tu., Th., S. 3—6 P.M.	C	E	D

*NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 63.*

## **EXAMINATIONS AND ADVANCEMENT IN COURSE.**

**I. Advancement.**—Students are advanced in course from one year to the next upon recommendation by heads of departments after examination in the work of that year, but examinations in major or minor subjects may, at the discretion of the Head of the Department, include all the work previously covered in the year or years preceding the examinations in question. There is, however, no unnecessary repetition of subjects taught from year to year.

**II. Examinations.**—Examinations for advancement in course, graduation and admission to advanced standing are held at the close of the year, except that in each course extending through a part of the year only, the examination may be held at the close of the course.

A grade of 75 per cent. is required to pass; a student failing to pass is either conditioned or dropped (see subjects of examinations, etc., pages 74-75).

A conditioned student may be re-examined at the discretion of the examiner.

A student who fails to pass all of his conditions shall not be allowed to register in the succeeding year of the curriculum, but shall be required to repeat the year.

A dropped student shall not be re-examined.

A student twice dropped from a given year of the curriculum shall not again be registered in this College.

No student of the first year who fails to reach an average standing of 65 per cent. and no student of the second year who fails to reach an average standing of 70 per cent. shall thereafter be admitted to this College.

**III. Record of Grades.**—At the completion of a final examination at the end of a course the grades of each student are to be promptly compiled and submitted by the examiner to the College office for record by the Secretary, and grades once recorded are not subject to change except in accordance with the rules governing re-examination (See II.). Announcement of grades is made only at the end of the session.

**IV. Final Examinations.**—Annual examinations are held at the end of a course, or coincident group of courses, in the hours allotted to said courses, or during the last week of the session; at the discretion of the head of the department, who will give notice of the date of examination through the office of the Secretary. All such final examinations are conducted under the direction of the head of the Department.

**V. Major and Minor Courses.**—Major courses are those in which a student completes his work in a given department or subject. Minor courses comprise the shorter laboratory and recitation courses.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

### Subjects of Examination for Completion of the First Year.

Major Subjects—Anatomy.

Physiology.

Organic Chemistry (including laboratory work).

Histology and Embryology.

Minor Subjects—Neuro-Anatomy.

Physiological Chemistry.

Conditions allowed: 1 Major and 1 Minor; or 2 Minor subjects.

*NOTE.—All conditions must be successfully passed before entrance into the next succeeding year will be allowed.*

### Subjects of Examination for Completion of the Second Year.

Major Subjects—Physiology.

Materia Medica and Pharmacology.

Minor Subjects—Medicine.

Surgery.

Obstetrics.

Bacteriology.

Anatomy.

Pathology.

Nutrition.

Conditions allowed: 1 Major and 1 Minor; or 2 Minor subjects.

(See note above.)

### Subjects of Examination for Completion of the Third Year.

Major Subjects—Applied Pharmacology.

Pathology.

Obstetrics.

Minor Subjects—Medicine.

Surgery.

Clinical Pathology.

Pediatrics.

Neurology.

Applied Anatomy.

Pathological Anatomy.

Urology.

Conditions allowed: 1 Major and 1 Minor; or 2 Minors.

(See note above.)

### Subjects of Examination for Completion of the Fourth Year and Graduation.

Major Subjects—Medicine.

Surgery.

Therapeutics.

Gynæcology.

## EXAMINATIONS AND ADVANCEMENT IN COURSE.

Minor Subjects—Hygiene.

Ophthalmology.

Neurology.

Laryngology and Rhinology.

Orthopædics.

Pediatrics.

Psycho-pathology.

Otology.

Dermatology.

Conditions allowed:—

If any student fails to pass in not more than one major, or in two minor subjects, a re-examination in those subjects may be allowed, and if the candidate is then successful the degree may be conferred.

If the candidate fails to pass in any subject at this second examination, the work of the fourth year must be repeated.

The examination in the major subjects are allowed two hours, and in the minor subjects one hour each.

### REQUIREMENTS FOR GRADUATION.

1. Candidates for the degree of doctor of medicine must have studied medicine for four full years in an accredited medical college, and the fourth year at least must have been spent in the Cornell University Medical College.

2. Candidates must present satisfactory evidence of good moral character and of being not less than twenty-one years of age.

3. Candidates must file with the Secretary of the Faculty satisfactory evidence of having complied with the entrance requirements (see page 20), together with the requisite legal medical student certificate.

NOTE.—This certificate is issued by the Department of Education of the State of New York on presentation of a diploma from a recognized College or University or properly attested certificate showing that such a diploma has been granted, together with a fee of twenty-five cents. If the student so requests, the Secretary of the Faculty may forward such diploma or certificate to the Department of Education of the State of New York with a request for the legal medical student certificate.

4. Candidates must have dissected at least one lateral half of the cadaver. They must, further, have taken the regular course of two weeks in practical obstetrics, and a certificate\* covering this course must be filed at the Secretary's office before registration for the final examinations, which begin about the last week of May.

5. In addition to the yearly examinations above specified for advancement in course, candidates must pass during the fourth year examinations in medicine, surgery, therapeutics, gynæcology, and the minor subjects which are specified on page 75.

6. Candidates rejected at the final examination will not be re-examined until after having repeated the fourth year of study.

\*This certificate must set forth the number of obstetrical cases personally attended by the student.

## CORNELL UNIVERSITY MEDICAL COLLEGE

Before being readmitted to the fourth year the candidate may be required to pass a satisfactory examination in anatomy, physiology, chemistry, and materia medica, the major subjects of the preceding years.

7. The degree will not be conferred upon any candidate who absents himself from the public Commencement without the special permission of the Faculty.

8. The Faculty reserves the right to terminate the connection of any student with the institution *at any time* on the ground of what they may deem moral or mental unfitness for the profession, or improper conduct while connected with the College.

### DIPLOMAS OF LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND MEMBERSHIP OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Graduates of the Cornell University Medical College are admitted to the final examinations for diploma of Licentiate of the Royal College of Physicians of London and Membership of the Royal College of Surgeons of England, upon presenting proper certificates that certain conditions applicable to the foreign universities and colleges, which are recognized by the examining board, have been complied with.

Further information may be obtained from the Secretary of the Board (Mr. F. G. Hallet) at the Examination Hall, Queen's Square, Bloomsbury, London, W. C.

### Prizes.

#### I. For general efficiency.

In commemoration of John Metcalfe Polk, an Instructor in this College, who was graduated from the Medical Department of Cornell University on June 7, 1899, and died on March 29, 1904, an annual prize of \$500 will be presented at each Commencement to the members of the Graduating Class who have pursued the full course of study in Cornell University Medical College.

This prize will be awarded as follows:

To the student having the highest standing.....\$300

To the student having the second highest standing..... 125

To the student having the third highest standing..... 75

#### II. For efficiency in Otology.

Two prizes, the first of \$50, the second of \$25, are offered by Professor Whiting to the two students of the graduating class to be designated by him who make the best records in the practical and theoretical work in otology.

### Fellowships.

#### A. Fellowships in Medicine.

Through the generosity of a friend of the College several annual Fellowships in Clinical Medicine, known as the Charles L. Sheldon Fellowships, have been established which provide for research in practical clinical work to be conducted by recent graduates in medicine under the direction of the Professor of Medicine.

## EXAMINATIONS AND ADVANCEMENT IN COURSE.

These fellowships are:

An annual fellowship of \$250 and two of \$200 each, to be awarded for clinical and experimental research in the Medical Out-Patient Clinic of the College.

These fellowships are awarded for the purpose of stimulating interest in the Dispensary classes and in the conduct of investigations in practical medical subjects. The holder is given charge of a dispensary class in General Medicine throughout the year, and facilities are furnished for research in some definite medical subject. These fellowships have been awarded in the past for research in occupational diseases, for which there is a specially organized clinical group of cases in connection with the medical clinic, and in the X-Ray in diagnosis of abdominal diseases, the serum treatment of exophthalmic goitre, etc.

During the session of 1917-18 three vacancies in the fellowships will occur.

### FELLOWS.

#### B. Fellowship in Pathology.

A fellowship, known as the J. Metcalfe Polk Fellowship, with an annual income of \$250 has been established in the Department of Experimental Pathology, and will be awarded to a graduate in Medicine who desires to pursue laboratory investigation in some field of Pathology.

### Hospital Appointments.

The students and graduates of the Cornell University Medical College are expected to compete for positions on the resident staff of New York, Bellevue and other hospitals of the city.

Some of these hospitals are: The City, Harlem, Gouverneur, Roosevelt, Fordham, St. Luke's, St. Vincent's, St. Francis', Mount Sinai, German, Hudson Street, New York Eye and Ear Infirmary, and the many hospitals in Brooklyn, Jersey City, Newark, Paterson, etc.

The requirements, the times of examination, and the period of service differ. The details can be learned by application, written or in person, to the superintendents or to the secretaries of the medical boards of the various hospitals.

A record of the hospital appointments received by the class of 1916 is shown in the list of Graduates on page 105.



## COURSES FOR GRADUATES

For some years special courses have been offered in several of the departments, and they have been, from time to time, pursued by graduates in medicine, teachers and advanced students and research workers in the medical sciences. For the benefit of such applicants these courses have been compiled, and are listed below under the several departments by which they are offered. For a list of the teaching staff the reader is referred to the detailed statement of the several departments contained in pages 28 to 62 of this announcement.

The courses offered below with the exceptions indicated are minor courses continuing six to eight weeks. Several departments are equipped to offer co-ordinated work extending over longer periods, and such courses can be arranged for the student by consultation with the head of the department.

In general it is recommended that students applying for admission to graduate courses so far as possible arrange to take consecutive work for a period of at least one College session. Such courses will be under the immediate supervision of an instructor from the department in which the greater portion of the student's work is performed.

*The faculty reserve the right to limit the number of applicants received and to alter or withdraw courses at any time.*

### ADMISSION.

Graduates in Medicine, Arts or Science, from approved colleges, who desire to pursue courses not leading to a degree, are admitted to registration as graduate students, after approval by the head of the department. Such courses do not count in any way as a part of the four years' course required of candidates for the degree of doctor in medicine. All students or other workers pursuing courses indicated below are required to register at the office of the Secretary.

### FEES.

Graduate students are admitted to any of the courses of instruction offered on the payment of a registration fee of five dollars and the tuition fee assigned to the course (see below). Those who have been previously registered as students in the Cornell University Medical College are not required to pay the registration fee.

In the courses outlined below, those marked with an \* may be begun at any time during the session.

### ANATOMY.

1. **Embryology.** October 1st to March 16th. Fee \$25. Details on page 28.

2.\* **Histological Technic.** Laboratory at least three hours daily and conferences with instructors. Fee \$25.

3 and 4. **General Histology, Microscopical Anatomy.** October 1st to March 16th. Details on page 28. Fee \$50.

5.\* **Dissection.** See Courses I-V, page 30. Fee \$25 per term (ten weeks); or for the entire dissection, \$50.

## COURSES FOR GRADUATES

6. **Neuro-Anatomy and Neuro-Histology.** March 18th to June 1st. Details on pages 30 and 31. Fee \$25.

7.\* **Anatomical Research.** Subject to special arrangement with head of department (see page 33).

### PHYSIOLOGY.

1. **General Physiology.** Begins with Term III in March and continues in Term I of the following session. Details on page 33. Fee \$50.

2.\* **Physiological Research.** Subject to special arrangement with head of department.

### CHEMISTRY.

1.\* **Advanced Physical and Physiological Chemistry.** Duration 10 weeks. Fee \$25.

2.\* **Chemical Pathology.** Duration 10 weeks. Fee \$25.

3.\* **Detection and Estimation of Poisons.** Duration 10 weeks. Fee \$25.

4.\* **Research Work in Physiological Chemistry, Chemical Pathology, or Toxicology.**

Note.—Courses in this department are subject to special arrangement with head of department. Special students in this department must present satisfactory evidence of preliminary training in inorganic chemistry with laboratory work as outlined on page 20.

### PHARMACOLOGY AND MATERIA MEDICA.

1.\* **Laboratory Pharmacology,** under supervision and including conferences with instructor. Fee \$25.

2.\* **Research Work in Pharmacology.**

### GENERAL THERAPEUTICS.

1. **Case Study,** includes investigation of therapeutic measures in selected groups of cases.

Course begins January 7th and continues for ten weeks. Fee \$50.

### CLINICAL PATHOLOGY.

1.‡ **General Clinical Microscopy.** Introductory to examination and analysis of urine, gastric contents, sputum, blood transudates, and including clinical bacteriology. Two-hour demonstrations thrice weekly for four weeks, 24 hours. Fee \$25.

Students who are accepted for the special courses in Clinical Pathology are expected to undertake or assist in the investigation of some assigned subject for at least six months.

2.‡ **Clinical Chemistry,** advanced chemical examinations of urine and fæces. Two-hour demonstrations thrice weekly for four weeks, 24 hours. Fee \$25.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

3.‡ **Clinical Bacteriology.** Two-hour demonstrations three or four times weekly for six to eight weeks, 48 hours. Fee \$50.

4.‡ **Serum Diagnosis**, including the Wassermann and Noguchi reactions. Twenty-four demonstrations, eight to ten weeks; 48 hours. Fee \$50.

5.‡ **Exudates and Transudates**, including cerebrospinal fluid. Methods of examination. Two-hour demonstrations thrice weekly for six weeks; 24 hours. Fee \$25.

6.‡ **Vaccine and Tubercular Diagnosis and Therapy.** Two-hour demonstrations, three or four times weekly for eight to ten weeks. Fee \$50.

7.‡ Courses 3 and 6, if combined, are given in 72 hours. Fee \$75.

‡Courses begin October 1st and May 1st.

### SURGERY.

1. **General Surgery.** Offered only during those months when the wards of Bellevue Hospital, Second Surgical Division, are unoccupied by undergraduate students.

The course consists of morning "rounds" with the visiting and assistant staff, and an afternoon operative clinic. Daily 9-11 A.M. and 2:30-6 P.M., March to May.

This course is offered without fee to graduates of this medical school.

2.\* **Operative Surgery on the Cadaver.** (Offered only to graduates in medicine.)

Course of	5 operations.....	\$20.00
" "	10 " .....	30.00
" "	20 " .....	40.00
" "	40 " .....	60.00
" "	80 " .....	90.00
" "	100 " .....	100.00

3. **Operative Surgery.** Regular undergraduate course, in second term only, begins January 7th. Fee \$25.

### OBSTETRICS.

1.\* **Manikin Instruction.** Obstetric operations and Diagnosis; 10 lessons. Fee \$20.

### PATHOLOGY.

1.\* **Pathological Anatomy and Autopsy Technics.** First trimester (see page 49).

2. **Neuro-pathology.** Offered only in February to March (see page 49).

### BACTERIOLOGY.

1. **General Bacteriology and Bacteriological Technique.**

The course includes a consideration of all of the common pathogenic bacteria. Five three hour periods weekly for six weeks, May 29 to July 8. Fee \$50. The course will not be given to less than eight students.

## *COURSES FOR GRADUATES.*

### **NEUROLOGY.**

1. **Neuro-anatomy and Histology.** See Department of Anatomy (pages 30 and 31). The student must present satisfactory evidence of an adequate knowledge of general histology. Fee \$25.
2. **Neuro-pathology.** See Department of Pathology, page 49. Fee \$25.
- 3.\* **Clinical Neurology.** Includes study of ambulatory and ward cases, with medical and electrical therapeutics. Two hours daily for two months. Should be preceded by Courses 1 and 2 or their equivalent. Fee \$50.
- 4.\* **Psycho-therapeutics.** Twice weekly for eight weeks. Should be preceded or taken in conjunction with Course 3. Fee \$25.

### **DERMATOLOGY.**

- 1.\* **Clinical Dermatology.** Ambulatory cases. Thrice weekly for six weeks, 2-3 P.M. Fee \$25.
- 2.\* **Histo-pathology of the Skin.** Thrice weekly for eight weeks. Fee \$25 each to classes of three or more; minimum fee for class, \$75.

### **LARYNGOLOGY AND RHINOLOGY.**

- 1.\* **Clinical Laryngology.** Course of 15 lessons on diagnosis and therapeutics, including operative treatment. Fee \$25.

### **OPHTHALMOLOGY.**

- 1.\* **Ophthalmoscopy.** 20 hours. Fee \$25.
- 2.\* **External Diseases of the Eye.** 20 hours. Fee \$25.
- 3.\* **Diseases of the Eye Muscles.** 15 hours. Fee \$20.
- 4.\* **Refraction and Retinoscopy.** 20 hours. Fee \$25.
- 5.\* **Simulation of Amblyopia and Amaurosis.** 5 hours. Fee \$20.
- 6.\* **Clinical Ophthalmology.** Daily 2-3 P.M. Fee per month, \$25.
- 7.\* **Ophthalmic Operations on the Cadaver.** (This course is given in coöperation with the Department of Anatomy). 20 hours. Fee \$50.
- 8.\* **Pathological Histology of the Eye.** (This course is given in coöperation with the Department of Pathology, and must be applied for in advance). 20 hours. Fee \$25.
- 9.\* **Bacteriology of the Eye.** (This course is given in coöperation with the Department of Pathology, and must be applied for in advance). 15 hours. Fee \$20.

## THE GRADUATE SCHOOL.

The scientific departments of the Medical College in New York City offer graduate instruction as an integral part of the Graduate School of Cornell University. Students who register in the medical college for work leading to the degree of Doctor of Philosophy are in all cases subject to the rules and regulations of the Graduate School of Cornell University.

### ADMISSION.

The Graduate School has exclusive control of all graduate work done in Cornell University. Graduates of the following colleges of the University, namely, the College of Arts and Sciences, the Medical College, the College of Architecture, the College of Civil Engineering, the Sibley College of Mechanical Engineering, and the New York State College of Agriculture,—or of other institutions in which the requirements for the first degree are substantially equivalent,—are eligible for admission to the Graduate School. In other cases, studies pursued after graduation, and experience gained by professional work or otherwise, are taken into consideration in deciding whether the candidate's preparation as a whole is such as to justify his admission to the Graduate School.

Seniors in the colleges of Cornell University who have completed the work required for the bachelor's degree may, under certain conditions to be ascertained from the deans of their respective colleges, be admitted to the Graduate School.

In order to avoid delays at the beginning of the academic year, those who desire to enter the Graduate Courses in the Medical Sciences are advised to make application for admission, either in person or by letter, in the preceding spring or summer. Correspondence should be addressed to the Dean of the Graduate School, Cornell University, Ithaca, N. Y.

Before admission it will be necessary to present evidence of the degree already received, *i. e.*, either the diploma or a statement from some official source. The simplest procedure will ordinarily be to submit an official statement from the Registrar or Dean that the degree has been conferred. A blank form of certificate will be furnished on request.

### STUDIES.

The purpose of the graduate courses is to provide the student with the method and discipline of original research, to the ultimate end that he may contribute to the advancement of knowledge. In furnishing this opportunity for independent study and investigation in the Medical College the Graduate School seeks to make the conditions such as will enable the student to devote himself wholly to his chosen field. Unhampered by the restrictions that necessarily obtain in undergraduate work, he will come into freedom of association with older scholars, who will seek to make his work profitable to

## THE GRADUATE SCHOOL.

him by giving such aid and direction as he may need. Inasmuch as subjects differ greatly, the requirements for all subjects cannot be stated in terms at once specific and uniform. In some departments of knowledge, original research may begin with the student's entrance into the School; in other subjects much preliminary work is necessary to fit the student for profitable research.

The branch of knowledge to which the student intends to devote the larger part of his time is termed his major subject. The other fields of study selected, which will be necessarily more restricted in their scope, and which should in general be selected with reference to their direct bearing upon the major subject, are termed the minor subjects. Candidates for the doctor's degree are required to select a major subject and two minor subjects; for the master's degree, a major subject and one minor subject are required. A statement of the major and minor subjects, approved by the professors with whom the work is taken, must be presented to the Dean not later than two weeks after admission to the Graduate School. The studies selected by a graduate student, who is not a candidate for an advanced degree, must be approved by some member of the faculty of the Graduate School, who acts as the student's adviser.

### SPECIAL COMMITTEES.

The work of each candidate for an advanced degree is in charge of a committee consisting of two or more teachers under whom the major and minor subjects are pursued, the representative of his major subject being chairman. The student is expected to confer freely with the members of his special committee, not only in connection with individual courses of study but also in regard to the general plan of his work.

### THE DEGREE OF DOCTOR OF PHILOSOPHY.

The degree of Doctor of Philosophy is granted to a student who, after completing not less than three years of resident graduate work, presents a satisfactory thesis and passes an examination.

The doctor's degree is intended to represent, not a specified amount of work covering a specified time, but long study and high attainment in a special field, proved in the first place by the presentation of a thesis which displays the power of independent investigation, and in the second place by passing corresponding examinations upon the ground covered by the major and minor subjects chosen at the beginning of the candidacy. The standard for the doctor's degree is determined by the attainment to be expected of an excellent student, who begins his work with adequate preparation, and devotes his whole time for three years to his major and minor subjects and his thesis.

Examinations for the doctor's degree will occur during the second week before Commencement, unless another date is set by the Dean. These examinations, which may be either oral or written, or both, at the option of the examining committee, are open to all members of the faculty. Candi-

## CORNELL UNIVERSITY MEDICAL COLLEGE.

dates who will have completed the other requirements for the degree in June, must apply to the Dean not later than April 15th for examination.

The thesis for the doctor's degree must be of such character as shall demonstrate the candidate's ability to do original work, and must be satisfactory in style and composition. A statement of the general subject of the thesis, with the written approval of the chairman of the special committee in charge of the candidate's work, must be furnished the Dean not later than December 1st of the academic year in which the degree is to be taken. The completed thesis, approved by the special committee, must be presented to the Dean at least five days before the examination for the degree. This copy may be retained for use at the examination or for binding.

Each candidate for the doctor's degree must deposit one hundred printed copies of his thesis with the Librarian of the University. The title page must include the statement that the thesis is presented to the Faculty of the Graduate School of Cornell University for the degree of Doctor of Philosophy. The author's name must be given in full, and, if the thesis is a reprint, the place and date of the original publication must be given. If the printing of the thesis is deferred until after Commencement the candidate must deposit a bound typewritten copy with the Dean not later than the Friday preceding Commencement. The size of the page in case of typewritten theses should be 8 x 10½ inches. This copy of the thesis becomes the permanent property of the Library.

Each candidate for the Doctor's degree shall be required to deposit one hundred printed copies of his thesis with the dean for the purposes of the university library. In exceptional cases this requirement may be met by depositing with the Dean for the purposes of the university library a bound typewritten copy of the thesis and one hundred printed copies of such a summary and such portion of the thesis as may be recommended by the chairman of the special committee and approved by the General Committee.

When all other requirements for the doctorate have been fulfilled, the degree may be conferred before the printed copies of the thesis have been received by the Dean, provided that the candidate present, at least five days before the degree is to be conferred, the bound typewritten copy of the thesis, together with a signed statement that publication will take place within a definite period, which period shall not exceed two years; and provided further that he deposit at the same time with the Treasurer of the University the sum of seventy-five dollars. The Treasurer is authorized to accept at his discretion as a guarantee a regularly executed bond instead of the deposit of money. The deposit will be returned if the prescribed number of printed copies of the thesis are furnished within the stated time. But in case the printed copies are not delivered within such time, the University reserves the right to use the deposit to defray the expense of printing the thesis or such portions of it as the Faculty may direct.

Candidates for the doctor's degree will ordinarily be expected to have a working knowledge of French and German before beginning graduate work;



## THE GRADUATE SCHOOL.

and in all cases they must, before beginning their second year of residence, show to the satisfaction of their special committees that they possess a reading knowledge of those languages. If the subjects chosen by the candidate are of such character as to make it desirable that he should be familiar with some foreign language other than French or German, the special committee may, with the consent of the Dean, permit the substitution of that language for one of the two required.

Not all students admitted to the Graduate School may expect to obtain the doctor's degree at the end of the minimum period of three years. Those whose undergraduate work has been insufficient in amount or too narrowly specialized, as well as those whose preparation in their special field is inadequate, must count upon spending some time—determinable by their proficiency—in work of a character not so advanced as that implied in the minimum residence requirement. The minimum residence requirement of three years applies only to graduates of a four years' course in some college of this University, and to graduates of other institutions who have pursued a course of study substantially equivalent to that required for the first degree in one or the colleges of this University.

Residence as a graduate student in another university may, by permission of the Faculty, be accepted as the equivalent of residence at this University. No general statement can be made regarding the conditions under which this permission will be granted; each case will be decided on its merits. A request for credit for resident work elsewhere must be approved by the student's special committee. At least one year's residence in this University is required in all cases.

Residence for a master's degree may be credited toward the residence required for the degree of Doctor of Philosophy, provided the special committee in charge of the work approves, certifying the work done as suitable for the doctor's degree.

Graduate work carried on by a candidate who is at the same time an instructor or an assistant in Cornell University is estimated on the basis of a four years' minimum residence requirement for the doctor's degree.

### FEEES.

A matriculation fee of \$5 is charged all students on entering the University. Tuition is \$150 per year.

A graduation fee of \$20 is required of each person about to take an advanced degree. This fee must be paid at least ten days before Commencement. The amount will be refunded should the degree not be conferred.

Each student pursuing Laboratory Courses is required to deposit with the clerk of the college the sum of \$10 to cover breakage. A deposit of \$5 will be required of each student who desires to withdraw books from the library.

These deposits, less the amount charged for breakage, will be returned at the end of each year.

Tickets must be taken out and paid for at the beginning of the session.

All tuition and other fees may be changed or increased by the Trustees to take effect at any time without previous notice.

## FACILITIES FOR GRADUATE STUDY AND COURSES OF INSTRUCTION.

The courses outlined in the following pages are offered by the Medical College in New York City, and are grouped primarily on the basis of subject matter. Under each subject there is given, in a separate paragraph, a list of courses some of which are too elementary in character to be likely to interest graduate students of that subject. There then follows a list of all those courses which, whether open or not open to undergraduates are deemed likely to be of profit to graduate students.

For courses in the medical sciences offered at Ithaca, the announcement of the Graduate School should be consulted.

### ANATOMY.

Professors: C. R. STOCKARD, J. F. GUDERNATSCH.

Instructors: C. V. MORRILL, G. PAPANICOLAU, R. CHAMBERS, JR., J. H. GLOBUS.

Abundant material and sufficient apparatus are available for advanced study and work in the various branches of anatomy, embryology, histology, comparative morphology, descriptive anatomy, and experimental anatomy. Students desiring to pursue graduate work in any of these branches must have had in their college courses preliminary training in general zoology and comparative anatomy. A reading knowledge of German and French is essential.

The laboratories are well equipped with microscopes, projection apparatus, microtomes, thermostats, etc., for advanced anatomical work. There is a good aquarium which makes it possible to conduct experimental studies on lower vertebrates.

New York City offers exceptional advantages for obtaining fresh human material. The large slaughter-houses are accessible for comparative mammalian tissues and organs. The extensive collections of specimens and models in the city museums are extremely helpful and instructive to the advanced student.

The members of the staff offer courses in the various phases of anatomy in which they are especially engaged. The courses offered for the medical students appear in this announcement, and are particularly recommended to those students who have not pursued work of this kind. Technical and practical anatomical work are fully provided.

Preliminary Requirements.—Physics, Chemistry and Biology as required for admission to the Medical College.

Morphology; Embryology; Histological Technic; General Histology; Microscopic Anatomy and Organology; Descriptive Anatomy including courses in dissection of the upper extremity, the head and neck, the lower

## FACILITIES FOR GRADUATE STUDY.

extremity, the thorax, the abdomen and pelvis; Demonstrations on the Cadaver; Live Anatomy; Dissection Review; Topographical Anatomy; Neuro-Anatomy and Neuro-Histology; Applied Anatomy; Organs of Special Sense; Anatomical Research.

*Anatomy of the Living Body.*—Professor Stockard.

*Special and Topographical Studies of Different Regions.*—Professor Stockard and Dr. Morrill.

*Human Histology and Histogenesis.*—Assistant Professor Gudernatsch and Dr. Chambers.

*Comparative Embryology.*—Assistant Professor Gudernatsch and Dr. Morrill.

*Experimental Morphology.*—Professor Stockard.

*Anatomy of the Infant and Postnatal Development.*—Professor Stockard.

## PHYSIOLOGY.

Professors: GRAHAM LUSK; J. R. MURLIN; C. J. WIGGERS.

The physiological laboratory contains rooms furnished with modern apparatus for research in physical physiology, an operating room for aseptic surgical operations on animals, a chemical laboratory principally devoted to researches in metabolism, and a calorimetry room in which there is an Atwater-Rosa respiration calorimeter of small size, adapted for work on children, dwarfs, and dogs. It is also equipped for work in general physiology. The laboratory is open to workers under certain restrictions at all hours of the day and night.

Appropriate minor subjects for students whose major subject is not in physiology, include nutrition with laboratory work, physiology of the respiration and circulation, and general physiology, including physiology of the cell and physiology of reproduction, and physiology of the nervous system.

The library of Professor Lusk, together with a large collection of reprints of articles by various authors, may be consulted by students.

A preliminary knowledge of Chemistry—analytical, organic and physiological—is requisite for those who select Physiology as a major.

Blood and Circulation; Secretion; Respiration; Nutrition; Metabolism, the Nervous System; Special Senses; Physic Relations; Seminary.

*Physiology of Nutrition.*—Professor Lusk.

*Respiration and Circulation.*—Professor Wiggers.

*General Physiology, including Physiology of the Cell and of Reproduction.*—Professor Murlin.

*Physiology of the Nervous System.*—Professor Murlin.

## PHYSIOLOGICAL CHEMISTRY AND CHEMICAL PATHOLOGY.

Professor: S. R. BENEDICT.

Instructors: J. C. BÖCK; E. OSTERBERG.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

The laboratories available for advanced work and research in physiological chemistry and chemical pathology include those of the Department of Chemistry, located in the main College building, the new chemical laboratories at Bellevue Hospital, and a research laboratory in the General Memorial Hospital. These laboratories provide adequate equipment for investigation in a great variety of special problems in the chemistry of the plant, animal or human organism in health or disease, by chemical, physical, or optical methods. In the College library the principal journals relating to these subjects are on file.

Students expecting to pursue investigation in physiological chemistry or chemical pathology should have adequate preliminary training in inorganic, analytical, and organic chemistry, as well as in physics, physiology, and physical chemistry, though a study of these latter subjects could be pursued at the College, together with more advanced work in special lines.

Organic and Physiological Chemistry; Research.

*Physiological Chemistry*.—Professor Benedict.

*Chemical Pathology*.—Professor Benedict.

### PATHOLOGY AND BACTERIOLOGY.

Professors: James EWING; W. J. ELSE; O. H. SCHULTZE; J. C. TORREY.

Instructors: F. M. HUNTOON; A. F. COCA; E. S. L'ESPÉRANCE; J. B. GERE.

The laboratories of pathology occupy the fourth floor of the main building and the third and fourth floors of the Loomis Laboratory. The equipment includes all the means commonly employed in pathological research and much new and original apparatus. Both laboratories are provided with suitable quarters for the care of animals. The departmental library includes about 8,000 bound volumes and a large and valuable collection of monographs and reprints. There is an extensive collection of specimens illustrating pathological histology, much material for histological study, and a museum containing about 1,200 specimens. The recent material from the autopsies at several hospitals is constantly available for study, and furnishes a supply of problems in many fields, which is practically inexhaustible. Applicants who have been admitted to the Graduate School are urged to present the degree of Doctor of Medicine for admission to these courses. A limited number of fellowships is available in this department.

Preliminary requirements—Anatomy, including Histology and Embryology.

General Pathology; Special Pathology; Pathological Anatomy; Medico-legal Pathology; Autopsy Technics; Experimental Pathology; Bacteriology.

*General Pathology*.—Professor Ewing.

*Special Pathology*.—Professor Ewing, Dr. L'Espérance and Dr. Coca.

*Bacteriology*.—Professor Elser and Dr. Huntoon.

*Immunology and Serology*.—Professor Elser.

*Preventive Medicine and Hygiene*.—Professor Torrey.

## FACILITIES FOR GRADUATE STUDY.

### PHARMACOLOGY.

Professor: R. A. HATCHER.

Instructor: C. EGGLESTON.

The laboratory of pharmacology, in the Loomis Laboratory, is well equipped for general work and research in pharmacology, and special opportunities will be afforded for doing work involving the action of drugs on the circulatory system, and methods of biological testing of drugs and medicines, either supplementing or replacing chemical tests for activity and identity.

The departmental library is sufficient for the immediate needs of workers, and its facilities are readily amplified by the College and other libraries near by which furnish every opportunity for extending the work.

A preliminary knowledge of Chemistry and Physiology is required.

Materia Medica and Pharmacy; Pharmacology.

*Research in the Pharmacodynamics of Drugs.*—Professor Hatcher and Dr. Eggleston.

*Toxicology.*—Professor Hatcher and Dr. Eggleston.

CORNELL UNIVERSITY MEDICAL COLLEGE.

FACULTY OF MEDICINE AT ITHACA.

JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D.,  
*President.*

SIMON HENRY GAGE, B.S.,  
*Professor of Histology and Embryology, Emeritus.*

WILLIAM RIDGELEY ORNDORFF, A.B., Ph.D.,  
*Professor of Organic Chemistry.*

ABRAM TUCKER KERR, B.S., M.D.,  
*Professor of Anatomy.*

BENJAMIN FREEMAN KINGSBURY, Ph.D., M.D.,  
*Professor of Histology and Embryology.*

SUTHERLAND SIMPSON, D.Sc., M.D., F.R.S. (Edin.),  
*Professor of Physiology.*

MELVIN DRESBACH, M.S., M.D.,  
*Assistant Professor of Physiology.*

JAMES BATCHELLOR SUMNER, A.M., Ph.D.,  
*Assistant Professor of Biochemistry.*

---

*Assistant Professor of Anatomy.*

SAMUEL ARTHUR MAHOOD, B.S., A.M.,  
*Instructor in Chemistry.*

HUGH McMILLAN KINGERY, A.B., A.M., Ph.D.,  
*Instructor in Histology and Embryology.*

HENRY KENNEDY DAVIS, A.M.,  
*Instructor in Anatomy.*

ROLAND HURDON HILL, A.B.,  
*Instructor in Biochemistry.*

---

*Assistant in Histology and Embryology.*

WILLIAM MALCOLM STOBBS, A.B.,  
*Instructor in Anatomy.*

AARON BODANSKY, B.S.,  
*Instructor in Biochemistry.*

STUART DEMING JACKSON,  
*Assistant in Chemistry.*

---

*Assistant in Anatomy.*

JOSEPH ALMA DYE, A.B.,  
*Assistant in Physiology.*

JOHN STEPHENS LATTI, B.S.,  
*Assistant in Histology and Embryology.*

GERTRUDE A. JOHNSON, A.M.,  
*Assistant in Histology and Embryology.*

---

*Assistant in Histology and Embryology.*

HENRY BRUNER SUTTON, A.B.,  
*Assistant in Anatomy.*

STANLEY ROSS BURLAGE, B.S.,  
*Assistant in Physiology.*

GAYLORD KELL COOKE,  
*Student Assistant in Histology and Embryology.*

ABRAM T. KERR, B.S., M.D.,  
*Secretary of the Medical Faculty at Ithaca*

## *ITHACA DIVISION.*

### **INSTRUCTION AT ITHACA.**

**DURING THE FIRST YEAR OF THE COURSE.**

#### **CALENDAR FOR ITHACA.**

**First Term, 1917-1918.**

September 24th, Monday.—Academic year begins; matriculation of new students; University scholarship examinations begin.

September 25th, Tuesday.—Matriculation of new students.

September 26th, Wednesday.—Registration of matriculated students.

September 27th, Thursday.—Instruction begins in all departments of the University at Ithaca. President's annual address to students at 12 M.

December 19th, Wednesday.—Christmas recess begins.

January 3rd, Wednesday.—Instruction resumed.

January 11th, Friday.—Founder's Day.

February 6th, Wednesday.—First term closes.

#### **Second Term.**

February 9th, Saturday.—Registration for the second term.

April 3rd, Wednesday.—Instruction ends.

April 11th, Thursday.—Instruction resumed.

May 25th, Saturday.—Navy Day.

June 14th, Friday.—Instruction ends.

June 19th, Wednesday.—Forty-ninth annual Commencement.

#### **General Statement.**

From its very foundation Cornell University has offered special courses for students preparing for the study of Medicine; first in the Natural History course, and later also in a special two-year Medical Preparatory course. In 1898 the Medical College was established in New York City with a four years' course. At the same time the work of the first year was duplicated at the University in Ithaca, since many of the fundamental scientific subjects of which this part of the course mainly consists were already provided for in the long-established departments of Botany, Zoölogy, Comparative Anatomy, Physics, Chemistry, Physiology, Histology, Embryology and Bacteriology. The courses in these departments were modified where necessary and additional courses were added so as to make the work at Ithaca fully equivalent to the first year in New York City.

Among the facilities of the University of special value to the Medical College may be mentioned the museums of Vertebrate and Invertebrate Zoölogy, including Entomology and Comparative Anatomy, of Agriculture, of Botany, of Geology, and of Veterinary Medicine. The University Library, with its 365,000 bound volumes, 64,000 pamphlets, and over 2,500 current



## CORNELL UNIVERSITY MEDICAL COLLEGE.

periodicals and transactions, is as freely open to medical students as to other University students.

Through the generosity of the late Dean Sage, of Albany, the University has been enabled to erect a building especially designed for anatomy, histology, embryology, and physiology. The building is constructed of Ohio sandstone. The general form is that of an E, 157 feet long and 50 feet wide, with wings 40 feet square.

In the cellar are the cold-storage, embalming, cremating rooms and store-rooms.

In the sub-basement at the west end is a large room for the string galvanometer and the accessory dark rooms.

In the basement are the ventilating and cold-storage machinery, a large lecture room, a recitation room, and an advanced laboratory for biochemistry and histology, besides the lower part of the large amphitheatre. Here also is located the operating room for the department of physiology.

On the first floor are located the coat rooms for men and women, college office, library, reading room, faculty room, and histology and neurology research laboratory, general laboratory for experimental physiology, demonstration, and dark room for physiology and the upper part of the large amphitheatre.

On the second floor is the department of histology, with a large general laboratory, a research laboratory, preparation rooms and private laboratories for the instructors. Upon this floor also is located the department of Physiology with a large general laboratory for biochemistry, a research laboratory for biochemistry, a research laboratory for experimental physiology, a metabolism room, an incubator room, repair shop and private laboratories for the instructors.

The third floor consists of the general and special dissecting rooms, study rooms, and amphitheatre, besides rooms for the instructors.

The attic is utilized for photography, macerating the skeletons, and for storage.

The air in the building is constantly changed by forced ventilation. The lighting is especially good in all the rooms.

In the court behind the building is a house for alcohol and inflammables and provision for experimental animals, including a small animal house. A large animal house is located at some distance from the medical building on the University farm.

## ITHACA DIVISION.

### DEPARTMENTS, METHODS AND FACILITIES. ANATOMY.

ABRAM T. KERR, B.S., M.D., *Professor.*

\_\_\_\_\_, *Assistant Professor.*

HENRY K. DAVIS, A.M., *Instructor.*

WILLIAM M. STOBBS, A.B., *Assistant.*

\_\_\_\_\_, *Assistant.*

HENRY B. SUTTON, A.B., *Assistant.*

The curriculum is so arranged that the students may devote a large amount of continuous time to each subject. Most of the work in gross Anatomy is concentrated in the first term of the first year and consists mainly of practical work in the laboratory. During this term twenty-two hours per week are allowed for this work, but the laboratory is open week days except Saturday from 8 to 5 and those students who have other free hours may devote extra time to the subject. Each student is independent of the others and those with special training or ability are permitted to do more than the required work and where they have the time they are encouraged to do advanced or research work.

During the first term the abdominal walls and viscera including the pelvis, the thoracic walls, and viscera, and the head and neck are dissected. For this work there is an ample supply of dissecting material that is well embalmed and kept in cold storage so as to be ready for use when needed. In addition the department is well equipped with models, special preparations, and dissections for study and demonstration. A complete disarticulate skeleton is loaned to each student at the beginning of the term so that the bones will be available for study whenever they are encountered in the course of the dissection. The various organs and parts are studied first topographically and then the finer structure is considered in sufficient detail to connect the gross anatomy with the Histology and Physiology. For this purpose a supply of lenses and binocular dissecting microscopes is available in the laboratory. Individual conferences and demonstrations are conducted on each stage of the work and in addition occasional recitations are held during the progress of the dissection. The students are encouraged to make careful notes and as many drawings as the time will permit, and they are taught to connect the dissecting room findings with the conditions in the live body. The object of the course is to make careful accurate observers and clear, independent thinkers as well as to teach the structure of the body. A student library containing atlases and some of the more important anatomical monographs is provided in the laboratory.

During the first half of the second term the gross anatomy of the central nervous system is studied in the laboratory. The students dissect the human brain and spinal cord and its membranes. The same methods are used as in the first term. In addition two hours a week are devoted to con-

## CORNELL UNIVERSITY MEDICAL COLLEGE.

ferences, demonstrations, and recitations, upon the structures which have been dissected during the first term.

The department is well equipped to provide facilities for those properly qualified to undertake advanced and research work.

Courses 1, 2, 3, 5 and 6 given below are required of medical students.

For other courses not primarily for medical students consult the announcement of the College of Arts and Sciences.

**1. Anatomy of the Head and Neck.**—First Term. Credit, 4 hours, 22 actual hours per week for 7 or more weeks. Professor Kerr, Instructor Davis, Assistants Stobbs and Sutton. Laboratory work, dissection, and conferences.

**2. Anatomy of the Thoracic Walls and Viscera.**—First term. Credit, 1 hour, 22 actual hours per week for 2 or more weeks. Professor Kerr, Instructor Davis, Assistants Stobbs and Sutton. Laboratory work, dissection, and conferences.

**3. Anatomy of the Abdominal and Pelvic Walls and Viscera.**—First term. Credit 4 hours, 22 actual hours per week for 7 or more weeks. Professor Kerr, Instructor Davis, Assistants Stobbs and Sutton. Laboratory work, dissection and conferences.

**5. Anatomy of the Central Nervous System.**—Second term. Credit, 2 hours, 10 actual hours per week for 8 weeks. Instructor Davis. Dissection of the Spinal Cord and Brain, with occasional demonstrations and recitations.

**6. Anatomy of the Living Body.**—Second term. Credit, 1 hour, 2 actual hours per week. Professor Kerr and Instructor Davis. Interpretation of dissecting room material by means of the living body, frozen sections and special preparations. A review of the work of courses 1, 2 and 3.

**7. Anatomy of the Upper Extremity.**—First and second terms. Credit, 2 to 3 hours. Professor Kerr, Instructor Davis and assistants. Laboratory work, dissection and conferences.

**8. Anatomy of the Lower Extremity.**—First and second terms. Credit, 2 to 3 hours. Professor Kerr, Instructor Davis and assistants. Laboratory work; dissection and conference.

**9. Topographical Anatomy.**—First and second terms. Credit, 2 to 5 hours. Prerequisite anatomy courses 1, 2, 3, 7, or 8. The detailed dissection and study of any region. Professor Kerr and Instructor Davis.

**12. Research in Anatomy.**—First and second terms. Professor Kerr. Advanced and research work in the laboratories. Open only to those who have taken the necessary preliminary courses, and are properly qualified.

### HISTOLOGY AND EMBRYOLOGY.

B. F. KINGSBURY, Ph.D., M.D., *Professor.*

HUGH M. KINGERY, A.B., A.M., Ph.D., *Instructor.*

\_\_\_\_\_, *Assistant.*

\_\_\_\_\_, *Assistant.*

GERTRUDE A. JOHNSON, A.M., *Assistant.*

JOHN S. LATTA, A.B., *Assistant.*

GAYLORD K. COOKE, *Student Assistant.*

## ITHACA DIVISION.

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope and its accessories, in vertebrate histology, and vertebrate embryology; and opportunities for research in all of these subjects.

The material equipment consists of a good supply of modern microscopes, while camera-lucidas, polariscopes, micro-spectroscopes, photo-micrographic cameras, microtomes and other special apparatus are in sufficient numbers to give each student opportunity for personally learning to use them, and for applying them to any special study in which they are called for. Two projection microscopes are available for class demonstrations and for making the drawings used in reconstruction. The collection of histologic and embryologic specimens is extensive and constantly increasing.

The rooms for the use of the department are on the second floor of Stimson Hall. They are almost perfectly lighted and consist of a large general laboratory, an advanced laboratory, a preparation room, department office, and five private laboratories for the instructing staff, where also special demonstrations of difficult subjects are given to small groups of students.

The collection of material and microscopic series of human embryology, contributed mainly by graduates of the college, is steadily growing. Every encouragement is given for the fullest utilization of the opportunities afforded by the department.

The work of the department consists of practical laboratory work, supplemented by lectures, conferences and demonstrations. The work required of students of medicine is given in two courses, 10 and 5. For those who have already had elsewhere satisfactory work in histology, elective work may be taken in Courses 3, 7, and 8. Courses open to students in the Colleges of Arts and Sciences and Veterinary Medicine are given in the Courses of Instruction of these Colleges.

### COURSES REQUIRED OF STUDENTS OF MEDICINE.

**10. Histology.**—First term. Credit, 6 hours. Professor Kingsbury and assistant. Required of first-year students of medicine. Four laboratory periods and two lectures each week. The work includes (a) The fundamentals of human development; (b) The histology of the tissues and organs (except the nervous system and organs of sense); (c) the main facts of histogenesis and the development of the organs (except nervous system and sense organs). It is highly advantageous that the course be preceded by a course in embryology (see Courses of Instruction of the College of Arts and Sciences, Course 4).

**10a. Histology.**—First term. Credit, 3 hours. Professor Kingsbury. Special topics in histology and embryology, designed for those who have had acceptable courses in histology and embryology, and to serve as a review. Two laboratory periods and one lecture-conference each week.

**5. The Nervous System and Organs of Sense.**—Histology and Development. Second term. Credit, 2 hours. Professor Kingsbury. Two laboratory periods with laboratory conferences and quizzes. The microscopic

## CORNELL UNIVERSITY MEDICAL COLLEGE.

structure and development of the nervous system and organs of sense are systematically studied

### ADVANCED AND ELECTIVE COURSES.

**3. Special Histology and Technique.**—First term. Credit, 3 hours. Instructor Kingery. One recitation, demonstration, or lecture, 8 T. Two laboratory periods by assignment.

In this course a more detailed knowledge of histology and facility in technique is gained by practical work in one or more of the fields of histology or embryology. Designed for those who desire a better working knowledge of histology for use in Biology or Medicine.

**7. Advanced Work in Histology and Embryology.**—First and second terms. Professor Kingsbury and Instructors. Laboratory work, eight or more actual hours per week, with Seminary (Course 8).

This course is designed for those preparing theses for baccalaureate or advanced degrees, and for those wishing to undertake special investigations in histology and embryology.

Course 7 is open to those who have had Courses 10 and 3, or their equivalents. A good reading knowledge of French and German is indispensable for the most successful work in this course. It is suggested that those who intend to take this course confer with the head of the Department as early as possible, so that the work may be planned to the best advantage.

**8. Seminary.**—First and second terms. One hour each week at an hour to be arranged.

For the discussion of current literature and the presentation of original work by the members of the Department staff and those doing advanced work in the Department. It may be taken in connection with Course 3 or Course 7.

### DEPARTMENT OF PHYSIOLOGY AND BIOCHEMISTRY.

SUTHERLAND SIMPSON, M.D., D.Sc., F.R.S. (Edin.), *Professor of Physiology.*

MELVIN DRESBACH, M.S., M.D., *Assistant Professor of Physiology.*

JAMES B. SUMNER, A.M., Ph.D., *Assistant Professor of Biochemistry.*

J. A. DYE, A.B., *Assistant in Physiology.*

ROLAND H. HILL, B.A., *Instructor in Biochemistry.*

AARON BODANSKY, B.S., *Instructor in Biochemistry.*

S. R. BURLAGE, B.S., *Assistant in Physiology.*

#### Physiology.

This subject is taught in the first and second terms of the first year, and the work is carried on by means of lectures, recitations, demonstrations, and practical laboratory instruction. In the laboratory the student is made to carry out for himself experiments which demonstrate the fundamental facts of the science, and he is taught to draw conclusions from these facts. Special attention is given to experimental methods which are likely to be of importance in the study of clinical medicine.

The following courses are offered:

## ITHACA DIVISION.

**1. Physiology of the Cell, Muscle, Nerve, Heart and Circulation, Blood and Lymph, and Respiration.**—First term. Credit, 3 hours. Professor Simpson, Assistant Professor Dresbach and assistants. Three lectures or recitations weekly with demonstrations, where necessary. At frequent intervals written and oral examinations will be held.

**2. Physiology of Digestion, Excretion, Internal Secretion, Animal Heat, and Reproduction.**—Second term. Credit, 3 hours. Professor Simpson, Assistant Professor Dresbach and assistants. Five lectures or recitations weekly for the first ten weeks of the term, with demonstrations and examinations as in Course 1. The latter part of this course will be taken up with a review of the whole subject.

**4. Experimental Physiology.**—Second term. Credit, 5 hours. Professor Simpson, Assistant Professor Dresbach and assistants. Two six-hour laboratory periods per week. In this course the physiology of the cell, muscle, nerve, heart and circulation, blood, respiration, alimentary system including liver and pancreas, internal secretion, body temperature and animal heat, nervous system and special senses will be studied practically by each student individually under the direct superintendence of the professor and assistants. The course will be supplemented by demonstrations whenever necessary. Practical examinations will be held from time to time, and the student's knowledge of the work tested orally at each meeting.

**5. Physiology of the Nervous System and Special Senses.**—Second term. Credit, 2 hours. Professor Simpson. This is given as a special course of lectures, five weekly for the last six weeks of the term, after the student has studied the anatomy of the brain and spinal cord, and special sense organs.

**7. Seminary.**—Second term. Credit, 1 hour. A seminary is held in association with Biochemistry at which current literature is discussed, and the results of original investigations carried on by workers in the laboratories are presented for criticism. Students are required to attend these meetings and to take part in the discussions, and each student is expected to give a communication on at least one occasion during the term.

**8. Advanced Work and Research.**—The laboratory is open daily from 8 A.M. till 6 P.M. for advanced work and original investigation under the direction of the professor and assistants.

### Biochemistry.

In this section the student is taught the chemistry of the tissues, fluids, secretions, and excretions of the human body; the composition of food-stuffs, and the phenomena of their digestion, absorption, and assimilation; the rôle of enzymes in the animal economy; the principles of nutrition; and the leading facts of general and special metabolism. Instruction is given in the use of analytical methods for the examination of biological products, both normal and pathological. Those methods are principally considered which have found an application in scientific medicine, and special



## CORNELL UNIVERSITY MEDICAL COLLEGE.

attention is devoted to the quantitative analysis of the gastric contents, milk, and urine. Each student completes the course by performing a metabolism experiment upon himself.

The bulk of the instruction is given in the laboratory. As occasion arises, the student's individual work there is supplemented by experimental demonstrations; while by means of lectures and recitations it is sought to coördinate the whole, and to expound the theoretical aspects of the subject.

The following courses are offered:

**15. General Biochemistry.**—Second term. Credit, 5 hours. Two lectures or recitations and three three hour laboratory periods weekly; supplemented by demonstrations, conferences and written reviews. Assistant Professor Sumner and Mr. Hill. Required of first-year students of medicine.

**17. Special Chapters in Biochemistry.**—First term. Credit, 1 hour. Assistant Professor Sumner. One lecture weekly on some selected province of biological chemistry. Hour to be arranged. This is an elective course for advanced students or graduates.

**20. Advanced and Research Work in Biochemistry.**—First and second terms. Assistant Professor Sumner. The laboratory is open daily to all qualified persons for advanced instruction or the prosecution of research. Courses are arranged to suit the training and requirements of the individual student.

**7. Seminary.**—See Physiology, Course 7.

## CHEMISTRY.

WILLIAM RIDGELEY ORNDORFF, A.B., Ph.D., *Professor of Organic Chemistry.*

SAMUEL ARTHUR MAHOOD, B.S., A.M., Ph.D., *Instructor.*

STUART DEMING JACKSON, *Assistant.*

**Organic Chemistry, or the Chemistry of the Compounds of Carbon.**—In this Course the study of the typical compounds of carbon, their properties, reactions, and relations to one another, is taken up, especial attention being given to those organic substances that are of physiological importance. The course consists of lectures, recitations supplemented by frequent written examinations, and laboratory work. The lectures are fully illustrated by experiments, specimens of the compounds considered, and charts.

**32. Elementary Organic Chemistry.**—First term. Credit, 4 hours. Three lectures, recitations, or written reviews, and three hours' laboratory work weekly. Dr. Mahood and Mr. Jackson,



## ITHACA DIVISION.

### SCHEDULE AND SUMMARIZED STATEMENT.

In this schedule the Counts or University hours are given on the following basis: One recitation or lecture weekly for one term or half year gives a credit of one; for laboratory work it requires two and one-half actual hours weekly for a term or half a year to secure a credit of one.

#### SCHEDULE OF REQUIRED COURSES.

##### *First Term.*

	<i>No. of Course.</i>	<i>University Hours.</i>	<i>Actual Hours per Week.</i>
Anatomy .....	1 to 3	9	22
Physiology .....	1	3	3
Organic Chemistry .....	32	4	6
Histology .....	10	6	14
		—	—
		22	45

##### *Second Term.*

Histology .....	5	2	6
Physiology .....	2	3	3
Physiology .....	4	5	12
Physiology .....	5	2	2
Physiology .....	7	1	1
Biochemistry .....	15	5	11
Anatomy .....	5	2	5
Anatomy .....	6	1	2
		—	—
		21	42

#### SUMMARY OF REQUIRED COURSES.

##### *First Term.*

1. **Anatomy of the Head and Neck.**—Credit, 4 hours, 22 actual hours per week for 7 weeks. Professor Kerr, Instructor Davis and assistants. Laboratory work, dissection, and conferences.

2. **Anatomy of the Thoracic Walls and Viscera.**—Credit, 1 hour, 22 actual hours per week for 2 weeks. Professor Kerr, Instructor Davis and assistants. Laboratory work, dissection, and conferences.

3. **Anatomy of the Abdominal and Pelvic Walls and Viscera.**—Credit, 4 hours, 22 actual hours per week for 7 weeks. Professor Kerr, Instructor Davis and assistants. Laboratory work, dissection, and conferences.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

**1. Physiology of the Cell, Muscle, Nerve, Heart and Circulation, Blood and Lymph, and Respiration.**—Credit, 3 hours. Professor Simpson and assistants. Three lectures, demonstrations or recitations weekly.

**32. Elementary Organic Chemistry.** First term. Credit, 4 hours. Three lectures, recitations, or written reviews, and three hours' laboratory work weekly. Dr. Mahood and Mr. Jackson.

**10. Histology.**—Credit, 6 hours. Professor Kingsbury and assistant. Four laboratory periods and two lectures each week.

### *Second Term.*

**5. The Nervous System and Organs of Sense.**—Credit, 2 hours. Professor Kingsbury. Histology and Development. Two laboratory periods with laboratory conferences and quizzes.

**2. Physiology of Respiration, Digestion, Excretion, Internal Secretion, Animal Heat, and Reproduction.**—Credit, 3 hours. Professor Simpson and assistants. The latter part of the course will be taken up with a review of the whole subject. Five lectures or recitations weekly for the first ten weeks of the term with demonstrations and examinations.

**4. Experimental Physiology.**—Credit, 5 hours. Professor Simpson and assistants. Two six-hour laboratory periods per week. This course will be supplemented by demonstrations whenever necessary.

**5. Physiology of the Nervous System and Special Senses.**—Credit, 2 hours. Professor Simpson. Five lectures per week for the last six weeks of the term.

**15. General Biochemistry.**—Credit, 5 hours. Two lectures or recitations and three three-hour laboratory periods weekly; supplemented by demonstrations, conferences and written reviews. Assistant Professor Sumner and Mr. Hill.

**5. Anatomy of the Central Nervous System.**—Credit, 2 hours, 5 actual hours per week. Instructor Davis. Dissection of the Spinal Cord and Brain, with occasional demonstrations and recitations.

**6. Anatomy of the Living Body.**—Credit, 1 hour, 2 actual hours per week. Professor Kerr and Instructor Davis. Interpretation of dissecting room material by means of the living body, frozen sections and special preparations. A review of the work of courses 1, 2 and 3.

**7. Seminary. Physiology.**—Credit, 1 hour. Each student is expected to give a communication on at least one occasion during the term.

### REQUIREMENTS FOR ADMISSION.

The requirements for admission are identical with those of the Medical College at New York City (see page 20).

## ITHACA DIVISION.

### THE COMBINED A.B. AND M.D. DEGREES.

It will be seen from Section II of the requirements for admission that the two degrees, Bachelor of Arts and Doctor of Medicine, may be obtained in seven years. The first three years must be taken in a College of Arts and Sciences. The fourth year is the first year in the Medical College, and at the end of it the student receives the degree of A.B. The last three years are taken entirely in the Cornell University Medical College at New York City.

In the first and second years of the course in Arts and Sciences at Cornell University, a student must complete at least six hours of work in English or History; six hours in one or more modern languages other than English; six hours in Philosophy and Mathematics; and six hours in Science.

The previous training and the personal aptitude and liking of students varies so greatly that it seems inadvisable to recommend fixed requirements for all. The following recommendations where they are specific as to courses apply to students in Cornell University. Students in their first year in college should study English, and unless they have a reading knowledge of both French and German they should take up the language in which they are deficient. It is advisable in this year to take Physics, lectures and recitations, course 2, and three hours of the laboratory course 10. It is also desirable to begin Biological work in this year taking course 1 in Biology or course 1 in Zoology depending upon previous training.

In the second year Chemistry should be started, the student taking Elementary Inorganic Chemistry, course 1, in the first term, and Qualitative and Quantitative Analysis, course 6, in the second term. Zoology, course 1, Comparative Anatomy, course 3, and Comparative Morphology, course 4, are desirable subjects at this time. Psychology should be taken this year and such other courses in Philosophy as appeal to the individual student. Elementary Economics is advised and such courses in History as are warranted by the previous study.

In the Junior year it is recommended that students take Organic Chemistry, course 32; Histology, course 1, and Embryology, course 4. Other desirable courses are Social Science, course 55; Citizenship, course 57; Histology, courses 2 and 3; Anatomical Methods, course 22; Public Speaking, Free Hand Drawing, and additional work in History and Philosophy, Photography, X-Ray photography, more Organic Chemistry and Physical Chemistry, Parasitology, and Medical Entomology, Botany and Mathematics. It is strongly recommended that freshman should plan at the beginning of their course the work of the three years in Arts. The Secretary of the Medical College will be glad to confer with students who expect to study medicine and to help them arrange their plan of Arts work so as to meet best their individual needs.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

### RESIDENCE AND REGISTRATION.

The college year is nine months long, extending from the last of September till about the middle of June, and is divided into two nearly equal terms. (For exact dates, see calendar on page 91.)

No credit is given for work done in absentia. For leave of absence during the session, application should be made to the Secretary.

At the beginning of the term (September 25 and 26, 1917, and February 9, 1918) students must register with the University Registrar, in Morrill Hall. After registration with the University Registrar, they must register with the Secretary of the Medical College, in Stimson Hall.

### EXAMINATIONS.

Students are advanced in course from one year to the next upon passing examinations upon the work of that year. The work of each year is considered final of itself. There is no unnecessary repetition of subjects taught from year to year. According to the usage of the other colleges, the University student found to be markedly deficient will be dropped from the College at the end of the term in which such deficiency is shown. In the case of a student so dropped, an application for re-admission will not be entertained until after the expiration of one term.

### ADVANCEMENT FROM FIRST TO SECOND YEAR

Upon the completion of the year in Ithaca, the student must obtain from the Faculty a statement of all the work which he has done; and accompanying this statement must be a recommendation that he be allowed to register in the New York division of the Medical College. As a student is not advanced from one year to another in the New York division until all the work of the year is completed, a student from Ithaca cannot enter the second-year class in New York until the entire schedule of the first year has been successfully completed. For removing any conditions, examinations are held at the beginning of the fall term, both in Ithaca and in New York City. The student is at liberty to take these examinations in Ithaca or in New York City. The examination on a subject in either place is final for that year. That is, the student will not be permitted to try an examination on a subject in Ithaca, and take advantage of the later date for the examination in New York to have a second examination on the same subject in the same autumn.

### CHARGES FOR INSTRUCTION.

#### FIRST YEAR.

Matriculation .....	\$5.00
Tuition .....	150.00
Laboratory Fees .....	35.00
	<hr/>
	\$190.00

## *ITHACA DIVISION.*

All tuition and other fees may be changed or increased by the Trustees to take effect at any time without previous notice.

To secure payment for breakage of instruments, apparatus, etc., each student is required to deposit with the treasurer \$10. This deposit, less the amount charged for breakage, will be returned at the end of the year.

### **RESIDENTIAL HALLS**

The University has three residential halls for men students situated on the Campus and furnishing accommodations for about 350 men. For particulars address University Treasurer, Ithaca, N. Y. Two additional halls for men are in the course of construction. There are, also, many private boarding and rooming houses near the University Campus. In these the cost of board and furnished room, with heat and light, varies from \$5 to \$12 a week. By the formation of clubs, students are sometimes able to reduce their expenses for room and board. A cafeteria is maintained by the University in Cascadilla Hall and one by the College of Agriculture in the Home Economics Building where meals may be obtained at nominal prices.

Before engaging rooms, students should carefully examine sanitary conditions and should particularly insist on satisfactory and sufficient fire escapes. The University publishes and distributes a list of approved rooming houses. This list is ready for distribution August 15, 1917. New students are advised to come to Ithaca a few days in advance of the beginning of the University duties in order that they may have ample time to secure room and board before the opening of the academic year. The Freshman Advisory Committee offers its assistance to new students in the selection of rooming and boarding houses.

The residential halls for women students are Sage College and Prudence Risley Hall. In these buildings, which are exclusively for women students, the total cost of board, laundry and rent of furnished rooms, with heat and light, is \$350 a year. The halls are heated by steam, and lighted by electricity. The University Adviser of Women has jurisdiction over all women students in the University, and women students are not permitted to board and lodge outside of the halls for women except in houses approved by the Adviser, and subject to her direction. Prospective women students should write to the Adviser of Women for information concerning any matters in which they may need assistance. Dormitory facilities for women are inadequate, and prospective students desiring such accommodations are urged to make early application. Inquiries in regard to board and rooms in the women's halls should be addressed to The Manager of Residential Halls, Sage College, Ithaca, N. Y.

# CORNELL UNIVERSITY MEDICAL COLLEGE

ITHACA, N. Y.

## FIRST YEAR—SESSION 1917-1918—FIRST TERM

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8	Anatomy	Anatomy	Anatomy	Anatomy	Histology	Histology
9				Physiology	Histology	Physiology
10				Histology		Histology
11						
12	Organic Chemistry	Physiology	Organic Chemistry		Organic Chemistry	
2	Histology	Anatomy	Anatomy	Organic Chemistry	Histology	
3						
4						
5						

## FIRST YEAR—SESSION 1917-1918—SECOND TERM

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8	Histology	Histology	Physiology	Anatomy	Physiology	Physiology
9		Physiology	Anatomy	Physiology	Biochemistry	Biochemistry
10		Physiology	Anatomy*	Physiology	Biochemistry	Biochemistry
11						
12						
2	Anatomy	Physiology	Anatomy*	Physiology	Biochemistry	
3						
4						
5			Physiology Sem.			

\*For the first half of the term only.

NOTE. The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice.

# GRADUATES, 1916

## Doctors of Medicine.

Alexander Altschul .....	Mt. Sinai Hospital
B.S., 1912, College of the City of New York.	
Emir Alan Benner .....	Lane Hospital, San Francisco, Cal.
B.S., 1909, Pomona College.	
Addison Hayes Bissell .....	Hudson Street Hospital
Litt.B., 1912, Princeton University.	
Robert Stephen Cleaver .....	New York Hospital
B.Sc., 1912, Rutgers College.	
John Anthony Colucci .....	New York Hospital
B.S., 1912, Manhattan College.	
George Stuart Hackett, Jr. ....	St. Francis Hospital
A.B., 1912, University of Wooster.	
Carl Clifford Harvey .....	Bellevue Hospital
B.S., 1912, Wesleyan University.	
Louis Hausman .....	Mt. Sinai Hospital
B.A., 1912, College of the City of New York.	
William Vincent Healey .....	Bellevue Hospital
A.B., 1913, Syracuse University.	
Eugenia Ingerman .....	Bellevue Hospital
A.B., 1911, Barnard College.	
Anna Kleegman .....	Bellevue Hospital
A.B., 1913, Cornell University.	
Arthur Furman Kraetzer .....	Bellevue Hospital
B.S., 1912, Princeton University.	
Edward Augustus Lane .....	New York Hospital
B.A., 1913, Williams College.	
Nils Paul Larsen .....	New York Hospital
B.S., 1913, Mass. Agricultural College.	
Michael Joseph Lynch .....	St. Vincent's Hospital
B.S., 1912, Manhattan College.	
John Dooley Lytle .....	Bellevue Hospital
A.B., 1913, Cornell University.	
Joseph Leo McGoldrick .....	St. Vincent's Hospital
A.B., 1912, Manhattan College.	
Arthur Spaulding McQuillan .....	Bellevue Hospital
B.A., 1913, Cornell University.	
Henry Joseph Meister .....	Bellevue Hospital
A.B., 1913, Cornell University.	
Monroe Abraham Meyer .....	Mt. Sinai Hospital
A.B., 1913, Cornell University.	
Attilio Milici .....	City Hospital
A.B., 1913, Yale University.	
Charles Townsend Olcott .....	New York Hospital
A.B., 1911, Princeton University.	
Theodore Byington Reed .....	Bellevue Hospital
Ph.B., 1912, Yale University.	
Ezra Burt Sanford .....	Roosevelt Hospital
A.B., 1913, Cornell University.	
Royal Francis Sengstacken .....	Bellevue Hospital
A.B., 1913, Syracuse University.	
Louise Townsend .....	Bellevue Hospital
A.B., 1913, Cornell University.	
James Ford Trimble .....	Hudson Street Hospital
A.B., 1910, Washington & Jefferson.	
Philip Layton Turner .....	St. Luke's Hospital
B.S., 1912, Amherst College.	
Eleanor Van Ness Van Alstyne .....	New York, N. Y.
B.S., 1906, University of Chicago; Ph.D., 1913 Cornell University.	
Hudson J. Wilson .....	New York Hospital
A.B., 1913, Cornell University.	

## Doctor of Philosophy.

Frank Curtis Gephart .....	New York, N. Y.
A.B., 1906, University of Kansas.	



# CORNELL UNIVERSITY MEDICAL COLLEGE.

## STUDENTS, 1916-1917.

### Candidates for the Degree of Doctor of Medicine.

#### FOURTH YEAR.

- Hilda Wood Allen, A.B., 1909, Barnard College; A.M., 1910,  
Columbia University .....New York, N. Y.
- Solomon Berger, A.B., 1914, Cornell University.....Elmira, N. Y.
- Albert F. Coutant, B.S., 1913; M.A., 1914, Cornell University, Brooklyn, N. Y.
- Archie Leigh Dean, Jr., B.S. in Agr., 1913, Cornell University,  
Brooklyn, N. Y.
- Albert Barnett Ferguson, A.B., 1914, University of Maine..New York, N. Y.
- Edward P. Flood, A.B., 1914, Cornell University.....Albany, N. Y.
- Joseph Haim Globus, B.S., 1914, Columbia University....New York, N. Y.
- Louis Greiner, A.B., 1913, College of the City of New York,  
New York, N. Y.
- Connie M. Guion, A.B., 1906, Wellesley College; A.M., 1913,  
Cornell University .....Charlotte, N. C.
- Henry Haywood, Jr., B.S., 1914, Dartmouth College..New Brunswick, N. J.
- David Rathburn Higbee, A.B., 1913, University of Nebraska...Omaha, Neb.
- Edward Hollander, B.S., 1912, College of the City of New York,  
New York, N. Y.
- Abraham Kardiner, A.B., 1912, College of the City of New York,  
New York, N. Y.
- Thomas Joseph Kirwin, Ph.C., B.S., 1916, University of Michigan;  
M.D., 1916, Tulane University.....Alexandria, La.
- Warren Post Kortright, A.B., 1913, Williams College..Huntington, N. Y.
- George Haven Mankin, A.B., 1914, Cornell University....Thurmond, W. Va.
- Merle M. Mosier, A.B., 1914, Cornell University.....Demarest, N. J.
- Linn Van der Heyden Reed, A.B., 1913, Yale University..New York, N. Y.
- Ralph D. Reid, A.B., 1914, Cornell University.....Schenectady, N. Y.
- Daniel Schultheis, A.B., 1913, Cornell University.....College Point, N. Y.
- Galen Fisher Scudder, A.B., 1913, Princeton University..Glastonbury, Conn.
- Herman Sharlit, A.B., 1913 (Feb.), Adelphi College; B.S., 1913,  
Columbia University .....Brooklyn, N. Y.
- John Lazear Sly, A.B., 1913, Williams College.....Warwick, N. Y.
- Ramsay Spillman, A.B., 1914, Cornell University.....Washington, D. C.
- Lawrence Emerson Sprout, B.S., 1912, Bucknell University..Picture Rock, Pa.
- Jeannette Russell Stobo, A.B., 1913, Barnard College....New York, N. Y.
- James Dowling Trask, Jr., Ph.B., 1913, Yale University..Highlands, N. J.
- Kaufman Wallach, A.B., 1914, Cornell University.....New York, N. Y.



# CORNELL UNIVERSITY MEDICAL COLLEGE.

## THIRD YEAR.

- Irvin Balenzweig, B.S., 1915, College of the City of New York,  
New York, N. Y.
- John Vail Bissett, B.S., 1912, Rutgers College.....New Brunswick, N. J.
- George Theron Blydenburgh, B.S., 1914, Wesleyan University,  
Richmond Hill, N. Y.
- Jacob August Cantor, A.B., 1914, College of the City of New York,  
New York, N. Y.
- John Augustine Casey, A.B., 1914, St. Johns College.. Bridgeport, Conn.
- Sidney Barnett Conger, B.S., 1915, Municipal University of Akron,  
Akron, Ohio
- Lloyd Freeman Craver, A.B., 1915, Cornell University.....Albany, N. Y.
- Birdina Crosby, B.S., 1913, Cornell University.....Brocton, N. Y.
- William Robert Delzell, A.B., 1915, University of Nebraska,  
Stevens Point, Wis.
- Hartley Greaves Dewey, B.S., 1913, Union College.....Schenectady, N. Y.
- Walter Eber Divine, B.S., 1914, Colgate University.....Brooklyn, N. Y.
- Haynes Harold Fellows, A.B., 1913, Wesleyan University.....Troy, N. Y.
- Michael Herbert Glazer, A.B., 1913, Yale University.....New Haven, Conn.
- Jacob Sanson Goldberg, A.B., 1914, College of the City of New York,  
New York, N. Y.
- Samuel Chester Johnson, A.B., 1914, Cornell University....Brooklyn, N. Y.
- Arthur Myndert Kimberly, A.B., 1912, Williams College...Watervliet, N. Y.
- Lisle Byron Kingery, A.B., 1915, University of Nebraska.....Tilden, Neb.
- Leila Charleton Knox, A.B., 1907, Wellesley College.....Conklin, N. Y.
- Leon Loewe, A.B., 1915, Cornell University.....Brooklyn, N. Y.
- Michael Paul Lonergan, B.S., 1915, University of Utah....New York, N. Y.
- Merwin Elliott Marsland, A.B., 1915, Cornell University....Hamden, N. Y.
- Ralph Emerson Myers, A.B., 1909; A.M., 1910, Yale University,  
Cobleskill, N. Y.
- Alfred Latimer Potter, A.B., 1914, Cornell University.....Hampton, Conn.
- Maurice Timothy Root, A.B., 1915, Cornell University....Farmington, Conn.
- Morton Ryder, A.B., 1915, Cornell University.....Carmel, N. Y.
- Samuel Schwadron, A.B., 1913, College of the City of New York,  
New York, N. Y.
- Abraham Morris Spindler, A.B., 1911, College of the City of New York,  
New York, N. Y.
- Richard Yoder Thompson, A.B., 1915, University of Nebraska,  
West Point, Neb.
- Helen Isabel Walbridge, A.B., 1902, Smith College.....New York, N. Y.
- Raymond Addison Warburton, B.S., 1913, University of Alabama,  
Brooklyn, N. Y.
- Walter Weller, A.B., 1915, Cornell University.....Hoboken, N. J.
- Joseph J. Wells, A.B., 1915, Cornell University.....Ithaca, N. Y.
- Edward Etsuya Yoshii, 1907, Doshisha University, Japan†...Brooklyn, N. Y.

†Doshisha University, at that time, granted no degrees, but offered an equivalent five-year course. Admitted under Clause III, page 20.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

## SECOND YEAR.

- Sophie Townsend Andrews, A.B., 1914, Barnard College; A.M., 1915,  
Columbia University .....New York, N. Y.  
Else Anna Sophie Barthel, B.S., 1916, Barnard College.....New York, N. Y.  
Frank Edward Barnes, A.B., 1914, Columbia University.....Brooklyn, N. Y.  
Solomon Biloon, B.S., 1915, College of the City of New York,  
New York, N. Y.  
Ralph Blumberg, A.B., 1914, Colgate University.....Brooklyn, N. Y.  
Emma Irene Boardman, A.B., 1915, Smith College.....Springfield, Mass.  
Dorothy Bocker, B.S., 1905, N. Y. University; A.M., 1910, Columbia  
University ..... Hicksville, N. Y.  
Howard Reid Craig, A.B., 1914, A.M., 1915, Wesleyan University,  
New York, N. Y.  
Thomas Wallis Davis, B.S., 1914, Trinity College.....Utica, N. Y.  
Russell Sweetser Ferguson, A.B., 1915, University of Maine,  
New York, N. Y.  
Harold Edwin Himwich, B.S., 1915, College of the City of New York,  
New York, N. Y.  
Ira Alfred Hinsdale, Ph.B., 1910, Syracuse University.....Camillus, N. Y.  
George Hall Hyslop, A.B., 1913, A.M., 1914, Indiana University,  
New York, N. Y.  
William J. Jackson, A.B., 1914, Fordham University.....New York, N. Y.  
Henry Howard Kessler, A.B., 1916, Cornell University.....Newark, N. J.  
Myer Joseph Lozovitsky, A.B., 1915, Brown University....New York, N. Y.  
Joseph Mandelberg, A.B., 1916, Cornell University.....Brooklyn, N. Y.  
Arturo Martinez, A.B., 1916, Cornell University.....Mayaguez, Porto Rico  
Bruno Casimir Mazurowski, A.B., 1916, Cornell University...Buffalo, N. Y.  
Gustav Kielland Oxholm, A.B., 1914, Clark University....New York, N. Y.  
Jean Harwood Pattison, A.B., 1911, Vassar College.....New York, N. Y.  
George Joseph Plehn, A.B., 1916, Cornell University.....New York, N. Y.  
Lucy DuBois Porter, A.B., 1916, Barnard College.....New York, N. Y.  
Mary Reesor, B.S., 1909, A.M., 1910, Columbia University..New York, N. Y.  
Franklin Ward Renfrew, B.S., 1914, Amherst College....Forest Hill, N. Y.  
Margaretha A. Ribble, A.B., 1913, Sweet Briar College.....Wytheville, Va.  
Michael Ringer, B.S., 1915, College of the City of New York,  
New York, N. Y.  
Edward Warren Ripley, B.S., 1915, New York University.....Brandon, Vt.  
William Alexander Rogers, Ph.B., 1913, Union College.....Yonkers, N. Y.  
Henry Isaac Scheer, B.S., 1915, College of the City of New York,  
New York, N. Y.  
Dean Franklin Smiley, A.B., 1916, Cornell University.....Brooklyn, N. Y.  
William Randolph Smith, A.B., 1916, Cornell University....Brooklyn, N. Y.  
Arthur McGrath Stokes, A.B., 1913, University of Rochester,  
Union Hill, N. Y.  
Dorothea von Doenhoff, A.B., 1914, Barnard College.....New York, N. Y.  
Ruth Flanigen Wadsworth, A.B., 1909, Vassar College; A.M., 1912,  
Columbia University .....New York, N. Y.  
Mathew Walzer, A.B., 1916, Cornell University.....Brooklyn, N. Y.  
David Warshaw, A.B., 1916, Cornell University.....Albany, N. Y.  
George Willis Waterman, Ph.B., 1915, Brown University...Providence, R. I.  
Willis Morris Weeden, A.B., 1916, Cornell University.....Frankfort, N. Y.

CORNELL UNIVERSITY MEDICAL COLLEGE.

FIRST YEAR.

Harold Biscoe Adams, Columbia University\*.....New York, N. Y.  
Robert J. Beck, A.B., 1913, Pennsylvania College.....Columbia, N. Y.  
Howard Newton Cooper, Colgate University\*.....Little Falls, N. Y.  
Raymond S. Crispell, Cornell University\*.....Kingston, N. Y.  
Harold Welding Daniels, B.S., 1914, Pomona College.....Claremont, Cal.  
Alexander G. Davidson, B.S., 1914, Cooper Union.....New York, N. Y.  
Wilson Farnsworth Dodd, Litt.B., 1916, Princeton University,  
Montclair, N. J.  
Richmond Douglass, A.B., 1916, Wooster College.....Shanghai, China.  
Clarence Ford Eddy, B.S., 1916, Wooster College.....New Rochelle, N. Y.  
Thomas Morton French, A.B., 1915, Cornell University.....Jamaica, N. Y.  
Walter Isaac Galland, A.B., 1911, Cornell University.....Wilkes-Barre, Pa.  
Gerson Garb, B.S. in Agr., 1916, Cornell University.....New York, N. Y.  
Maurice Gelb, B.S., 1916, College of the City of New York..New York, N. Y.  
Abraham Roscoe Harber, B.S., 1916, College of the City of New York,  
New York, N. Y.  
Frank West Harrah, A.B., 1916, University of Denver.....Parlett, Ohio  
Meyer Mathews Harris, B.S., 1914, College of the City of New York,  
New York, N. Y.  
George Foster Herben, B.S., 1916, Rutgers College.....Westfield, N. J.  
Archibald Leonard Johnson, A.B., 1916, University of Kentucky..Tallaga, Ky.  
Milo Ernest Holsted, A.B., 1915, Wheaton College.....Wheaton, Ill.  
Thomas Bernard Joyce, A.B., 1916, Clark University.....Gardner, Mass.  
Abraham Landy, B.S., 1916, College of the City of New York,  
New York, N. Y.  
John Robert Andrew Lang, Jr., Colgate University\*.....Mt. Vernon, N. Y.  
Louis Jean Baptiste Le Bel, A.B., 1916, New York University..Nutley, N. J.  
Sam Zachary Levine, A.B., 1914, College of the City of New York,  
New York, N. Y.  
Louis Levy, B.S., 1916, College of the City of New York...New York, N. Y.  
John S. McCampbell, A.B., 1916, Westminster College...San Antonio, Texas  
John Gerard McNamara, A.B., 1916, St. Francis Xavier...Brooklyn, N. Y.  
Maxwell Mitchell, B.S., 1916, College of the City of New York,  
New York, N. Y.  
Harry Ernest Montero, B.S., 1916, College of the City of New York,  
Bloomfield, N. J.  
Carleton Kingsley Ober, A.B., 1916, Williams College...White Plains, N. Y.  
Vernon D. Parker, A.B., 1916, Oberlin College.....Batavia, N. Y.  
Walter Francis Phelan, Cornell University\*.....Yonkers, N. Y.  
Barrett Pincus, B.S., 1915, College of the City of New York,  
New York, N. Y.  
Paul Reznikoff, B.S., 1916, New York University.....Brooklyn, N. Y.  
Ernest Frederick Russell, A.B., 1916, Yale University...White Plains, N. Y.  
Ralph William Schaeffer, B.S., 1916, University of Rochester,  
Rochester, N. Y.  
Norman Waterbury Scudder, A.B., 1916, Princeton University,  
Glastonbury, Conn.  
Jacob Smith, B.S., 1916, College of the City of New York...New York, N. Y.  
Nathaniel Brown Stanton, A.B., 1916, Colgate University.....Bath, N. Y.  
Guy Williams Wells, Ph.B., 1916, Brown University.....Montrose, Pa.

\*Admitted under Clause II. See page 20.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

## FIRST YEAR AT ITHACA.

Flora Adams, A.B., 1915, Wellesley College.....	Hackensack, N. J.
Harold S. Belcher, A.B., 1916, Cornell University.....	Newark, N. J.
Mary F. Brew, A.B., 1914, Barnard College.....	Brooklyn, N. Y.
Chauncey F. Brown, A.B., 1916, Park College.....	La Crescenta, Cal.
Donald W. Cady, A.B., 1916, Cornell University.....	New Rochelle, N. Y.
Moses Carnes, A.B., 1916, Cornell University.....	Tupper Lake, N. Y.
Herbert H. Davis, Cornell University*.....	Omaha, Neb.
Rufus L. Durfee, Cornell University*.....	Binghamton, N. Y.
Paul W. Eckley, Cornell University*.....	New Kensington, Pa.
Margaret E. Fries, Barnard College*.....	New York City
Harry N. Glick, A.B., 1917 (Feb.) Cornell University.....	Woodbine, N. J.
Anna E. Kühner, Cornell University*.....	New York City
Leo P. Larkin, Cornell University*.....	Ithaca, N. Y.
Harry E. Mack, Cornell University*.....	Brooklyn, N. Y.
Laura W. Miller, A.B., 1916, Cornell University.....	New York City
Stell M. Miller, Barnard College*.....	New York, N. Y.
Cora H. Morris, Barnard College*.....	New York City
Margaret H. Nelson, Goucher College*.....	Buffalo, N. Y.
Leighton P. Rand, A.B., 1916, Cornell University.....	Brooklyn, N. Y.
Florence DuB. Rees, A.B., 1912, Barnard College.....	New York City
Georgia Reid, A.B., 1916, Hunter College.....	New York City
Edwin P. Russell, Cornell University*.....	Crown Point, N. Y.
Anne M. Seligman, Cornell University*.....	Keyport, N. J.
Joseph T. Sheridan, Cornell University*.....	Richmond Hill, N. Y.
Harold E. Sturcken, Cornell University*.....	Albany, N. Y.
Frederica Winestine, A.B., 1916, Vassar College.....	Waterbury, Conn.
Winifred Woodman, Cornell University*.....	Brooklyn, N. Y.

\*Admitted under Clause II. See page 20.

## CANDIDATES FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

Josef Carl Bock, 1909 (Certificate of Chem. Eng.), Polytechnic Institute, Vienna, Austria .....	Brooklyn, N. Y.
Helen Bissing Davis, A.B., 1911, University of Nebraska; A.M., 1913, Columbia University .....	Lincoln, Neb.
Agnes Goldman, A.B., 1909, Bryn Mawr College; A.M., 1913, Columbia University .....	New York, N. Y.
Isaac Neuwirth, B.S., 1914, Cornell University.....	New York, N. Y.
Theresa Levy, B.S., 1916, Barnard College.....	New York, N. Y.

## GRADUATE STUDENTS (NOT CANDIDATES FOR A DEGREE).

Sigmund Arthur Agatson, M.D., 1906, Columbia University (Ophthalmology) .....	New York, N. Y.
Arthur Francis Ash, M.D., 1901, Queen's Medical College (Anatomy), Weehawken, N. J.	

# *CORNELL UNIVERSITY MEDICAL COLLEGE.*

- Frederic Wallace Black, M.D., 1907, Medico-Chirurgical College  
(Anatomy) ..... Huntingdon, Pa.
- Max Boegel, M.D., 1916, Columbia University (Anatomy) ..New York, N. Y.
- Henry Montague Bonner, M.D., 1897, Medical College of Virginia  
(Ophthalmology) ..... New Bern, N. C.
- George H. Clark, M.D., 1908, Syracuse University (Anatomy),  
Rochester, N. Y.
- John Cook, M.D., 1902, Baltimore Medical College (Ophthalmology),  
Bayonne, N. J.
- Malcolm Peel Dillard, M. D., 1914, Medical College of Virginia  
(Ophthalmology) .....Center Cross, Va.
- Henry Archbold Fischer, M.D., 1906, Columbia University (Anatomy),  
Jamaica, N. Y.
- William Ward Gillespie, B.S., 1908, Valparaiso University; M.D., 1916,  
Wisconsin Medical College (Ophthalmology) .....Milwaukee, Wis.
- Patrick Lamb Gordon, M.D., 1898, Medical College of Virginia  
(Ophthalmology) .....Charleston, W. Va.
- Gideon Graham, M.D., 1906, Memphis Hospital Medical College  
(Ophthalmology) ..... Gonzales, Texas
- Joseph D. Hallinan, M.D., 1908, Long Island College Hospital  
(Anatomy) .....Richmond Hill, N. Y.
- Henry Clay Hays, M.D., 1909, University of Louisville  
(Ophthalmology) ..... Princeton, Ia.
- Eduard L. Howard, M.D., 1906, Texas Christian College  
(Ophthalmology) ..... Brownwood, Tex.
- Philip Jager, M.D., 1899, N. Y. Eclectic Medical College  
(Anatomy) ..... New York, N. Y.
- Herman Keller, B.S., 1906, M.D., 1910, St. Louis University  
(Ophthalmology) ..... Minneapolis, Minn.
- Ann Fayler Kuttner, B.S., 1915, Barnard College (Chemistry),  
New York, N. Y.
- Elmer E. Langley, M.D., 1905, Baltimore Medical College (Anatomy),  
Spokane, Wash.
- Samuel Archibald Levene, M.D., 1907, Long Island College Hospital  
(Anatomy) ..... New York, N. Y.
- Miles J. Lewis, M.D., 1897, Medical Chirurgical College  
(Ophthalmology) ..... Marion, Ind.
- Frederick Clarence Lord, M.D., 1903, Medical School of Maine  
(Ophthalmology) ..... Kennebunk, Me.
- Mary Carswell McClellan, M.D., 1907, Woman's Medical College of  
Pennsylvania (Pathology) .....New York, N. Y.
- Charles Jacob Mark, M.D., 1906, Long Island College Hospital  
(Anatomy) ..... New York, N. Y.
- Henry Taylor Miller, M.D., 1905, Medical College of Virginia  
(Ophthalmology) ..... New York, N. Y.
- Albert Polon, M.D., 1910, Cornell University (Anatomy) ..New York, N. Y.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

Abraham Poska, M.D., 1899, University of Chicago (Anatomy),	Jamaica, N. Y.
Marl Lee Reger, M.D., 1902, College of Physicians and Surgeons of Baltimore (Anatomy) .....	Spokane, Wash.
George G. Richardson, M.D., 1905, Indiana Medical College (Ophthalmology) .....	Van Beeker, Ind.
Louie Ethelyn Vandervoort Stegman, M.D., 1906, American Medical Mis- sionary College (Ophthalmology) .....	Battle Creek, Mich.
Oscar Elmer Veatch, A.B., 1905, M.D., 1908, Southwestern University (Ophthalmology) .....	Ft. Worth, Texas
John Frederick von der Lieth, Ph.B., 1912, Sc.M., 1913, Brown University (Neuro-Anatomy and Physiology) .....	Hoboken, N. J.
James Monroe Wicks, M.D., 1905, Cornell University (Anatomy),	Jamaica, N. Y.
John Davidson Williams, M.D., 1895, University of Cincinnati (Ophthalmology) .....	Catlettsburgh, Ky.
George Escourt Winter, M.D., 1905, Detroit College of Medicine and Surgery (Ophthalmology) .....	Jackson, Mich.
Joseph Alfred Lewis Wolfe, M.D., 1912, University College of Medicine, Richmond, Virginia (Ophthalmology) .....	Van Aldyne, Va.

## SUMMARY.

Fourth Year .....	28
Third Year .....	33
Second Year .....	39
First Year .....	40
First Year at Ithaca .....	27
	<hr/>
	167
Candidates for degree of M.D. ....	167
"    "    "    "    Ph.D. ....	5
Graduate Students .....	36
	<hr/>
	208



## CORNELL UNIVERSITY

The GRADUATE SCHOOL (Degrees A.M., Ph.D., etc.)

The COLLEGE OF ARTS AND SCIENCES (Degrees A.B. and B. Chem.)

The COLLEGE OF LAW (Degree LL.B.)

The MEDICAL COLLEGE\* (Degree M.D.)

The NEW YORK STATE VETERINARY COLLEGE (Degree D.V.M.)

The COLLEGE OF AGRICULTURE (Degree B.S.)

The COLLEGE OF ARCHITECTURE (Degree B.Arch.)

The COLLEGE OF CIVIL ENGINEERING (Degree C.E.)

The SIBLEY COLLEGE OF MECHANICAL ENGINEERING AND MECHANIC ARTS  
(Degree M.E.)

*For copies of the University Publications and for additional information  
apply to*

SECRETARY, CORNELL UNIVERSITY,

Ithaca, N. Y.

\*The full four-year course of the CORNELL UNIVERSITY MEDICAL COLLEGE is given in the City of New York; the work of the first year is also given at Ithaca. Any student may take the first year either at New York City or at Ithaca. *All students take the last three years of the course in New York City only.* Special announcement of the Medical College and information of every kind regarding all four years will be furnished on application to

SECRETARY, Cornell University Medical College,  
First Avenue and 28th Street, New York City.

or, (regarding first year at Ithaca),

SECRETARY, Cornell Medical College,  
Stimson Hall, Ithaca, N. Y.



